SCALA ®

Scala MM100 Installation and Setup Guide

Demo

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Scala MM100 Installation and Setup Guide

Welcome to the demo version of Scala MultiMedia MM100!

This guide will give you instructions on how to install and set up Scala for best performance on your PC.

Installing Scala

Insert the Scala MM100 CD into your CD-ROM drive. The procedure you follow to begin installing Scala varies slightly depending on your operating system. All the following procedures assume that d: is your CD-ROM drive; if not, substitute the correct letter:

- In Windows95, click the *Start* button and choose *Run....* Then type:

    ```
    d:\setup
    ```

    and click *OK.*

- In Windows 3.1, from the **File** menu, choose *Run...*, then type:

    ```
    d:\setup
    ```

    and click *OK.*

- In OS/2 Warp, open an OS/2 shell and type:

    ```
    d:\install
    ```

    and press Return.

- In DOS, type:

    ```
    d:
    cd \
    install
    ```

    and press Return.

Choosing a language

The Windows and OS/2 setup programs first ask you to select a language. You may pick English, German, French, Spanish, Italian, Dutch, Danish, Swedish or Norwegian. After you have made your language selection, click *Next* or press Return.

The program will begin the installation and show the progress on the screen as it creates icons and a program group for Scala. Three icons will be created on your desktop. One icon for the MM100 program itself, another icon for DIAG, a hardware diagnostic program described later in this guide, and another icon for the README file containing last minute changes and corrections. The README file may be displayed at the end of the installation.

Starting Scala

The installation and setup programs for this demo version of Scala MultiMedia MM100 create predefined icons on your system to start Scala quickly and easily. To start Scala, make sure that the Scala CD is in your CD-ROM drive, then from Windows95, click the *Start* button, select *Programs* and choose Scala from the menu or double-click the Scala icon from Explorer.

To start Scala from Windows 3.1 or OS/2, double-click the Scala icon.

This demo version of Scala installs only icons on your hard drive. The actual program and demos are run directly from the CD to conserve hard disk space. For best perfomance from the CD, we recommend using at least a quad speed CD-ROM drive. The full Scala package, which may be purchased from your local Scala dealer, can be installed to your hard drive for top performance.

To start Scala from DOS, at the prompt, enter:

```
d:
cd \scala
english
```

This example assumes that your CD-ROM drive is drive d: and you wish to run the English version of Scala MM100. You may also run the international language versions of Scala by entering: deutsch, francais, italiano, espanol, nederlnd, dansk, svenska, or norsk instead of the word english in the above example.

Running Scala for the first time

The first thing you see when starting Scala is the Scala "splash" screen, which shows our logo and copyright message. The icons below the logo show the progress as Scala loads into your computer. After everything is loaded, you see the Scala **Main** menu. That's all there is to it.

Note

The background color of the Scala splash screen is chosen randomly each time you start Scala. We think variety is the spice of life.

Configuring sound for Scala

The first time that Scala runs, it asks you if you would like to configure the sound options. Normally, you will want to do this. Click *Yes*, and you see the Sound Options dialog. If you know the kind of sound card that you have, you may select it directly, otherwise, you can have Scala attempt to automatically detect your sound hardware. Click *Auto Detect* and your system will be scanned for each of the settings. If you have a Creative Labs Sound Blaster™ card, and your machine is relatively new, you probably have a "Sound Blaster 16". In most PCs, these cards typically use address 220, IRQ 5, and DMA channel 1.

If your sound card has wavetable synthesis, then you need to make sure that the MIDI options are set correctly. Many wavetable cards support General MIDI/MPU-401 on address 330. The Creative Labs Sound Blaster AWE32™ normally uses an address of 620. Please note that Scala does not support the playing of MIDI files unless you have a wavetable card.

Testing your sound settings

When autodetect is finished, you should test the settings to make sure they are correct by clicking the *Test* button. If these setting are incorrect, you will not hear a sound; on rare instances the system could freeze, making it necessary to restart your computer. If you have difficulty getting the settings sorted out for your particular sound card, please consult the hardware manual for your PC or sound card. Since you are running Scala directly from the CD, you cannot save your sound settings to the CD. CD-ROMs are read only. You must correctly configure the sound settings each time you run this version of the program. The complete version allows you to save these settings to your hard drive.

Compatibility

PLEASE NOTE: Scala currently does not have sound drivers for all makes of sound cards on the market. Scala fully supports the Creative Labs Sound Blaster family of sound
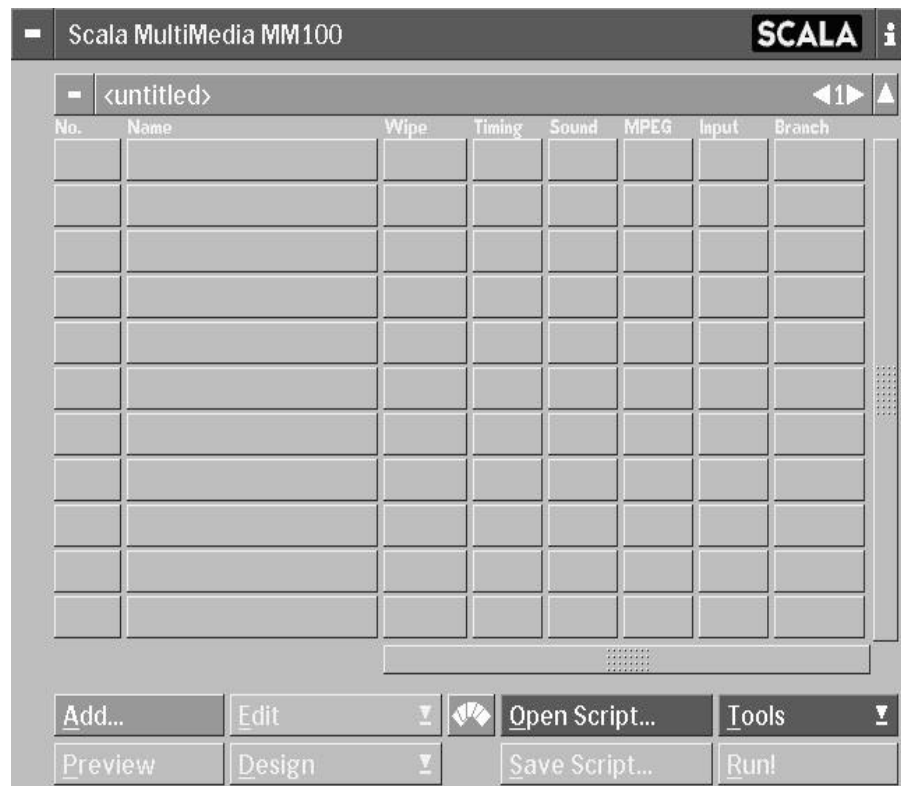
cards. Many sound cards made by other manufacturers are "Sound Blaster compatible" and thus can be used with Scala. Unfortunately, this does not imply 100% compatibility. Often, however, the best setting for these cards is "Sound Blaster Pro".

Although this is only an 8-bit mode, it should work if your card is Sound Blaster compatible. Another setting that may work is "Business Audio".

If you do not have a Creative Labs sound card, you may have to experiment with the sound settings to find the combination that works best. Please consult the manual that came with your sound card for information on Sound Blaster compatibility and recommendations for specific settings for Address, IRQ, and DMA.

At this point, Scala should be up and running. You should see the Scala **Main** menu as shown here. For other configuration options for Scala, choose *Options* from the *Tools* pop-up on the Main menu.

Switching Between Scala and the OS

On Windows95, you can easily switch between the full Scala screen and Windows95 by pressing Alt+Esc. To return to Scala, just double-click on the *MMOS* item on the Task Bar.

In OS/2 or Windows 3.1, you may switch from Scala to the OS by pressing Ctrl+F1 and then Ctrl+Esc. To return to Scala, double-click on the Scala icon and press Return.

What to do if you have problems

It may happen that you have some initial difficulty with getting your system to work properly with Scala. In most cases, taking care of the problem is a matter of finding the right settings. In some cases, however, you can run up against absolute hardware limitations.

Problem: I get a message on the splash screen saying that Scala could not allocate 5242880 bytes of memory.

Explanation: Scala needs at least 8 MB of memory to run. If you do not have enough free memory, Scala will not start. For larger, more complex productions, we recommend that you have at least 16 MB of memory.

Problem: I do have 8 MB of RAM and I still get this message.

Explanation: The most likely cause is that too much of your memory is being used by the operating system (Windows, DOS, or OS/2). A common PC memory glutton is the SmartDrive disk-caching utility. This often defaults to a rather large setting—up to 2 MB or more—to provide a memory cache for your hard drive. We have found that in most instances, SmartDrive and Scala can get along better if you limit SmartDrive to 512 KB in your AUTOEXEC.BAT. We do not make this change automatically; you need to edit your AUTOEXEC.BAT file yourself. In this file, there probably is a line that reads:

```
SMARTDRIVE.EXE
```

or something similar. We recommend that this be changed to:

```
SMARTDRIVE.EXE 512 128
```

to free up more memory for Scala.

Problem: After loading the EXes, the screen goes black and does not come back, or the screen is garbled.

Explanation: If this happens and you are running Scala from Windows 3.1, we recommend that you exit fully to DOS, and try again. If you are running Scala from DOS, OS/2 or Windows95, and the **Main** menu still does not come up, you should run the program Scala provides called Diag (Hardware Diagnostics).

Problem: When running Scala under Windows 3.1, the program stops when it encounters sounds, but otherwise works properly.

Explanation: Some Windows 3.1 drivers can conflict with Scala's drivers. You can avoid this by disabling the Sound EX in Scala or the Wave and MIDI drivers in Windows 3.1, or by exiting Windows to DOS and running Scala from DOS.

Scala Hardware Diagnostics HD100 (Diag)

The Diag tool is a sophisticated suite of software tools that can examine and test the hardware in your system. Diag can identify a wide range of popular audio and video hardware for you, can perform definitive tests on the hardware to determine whether it is working correctly, and allows you to set various options that can help improve Scala performance and solve compatibility problems.
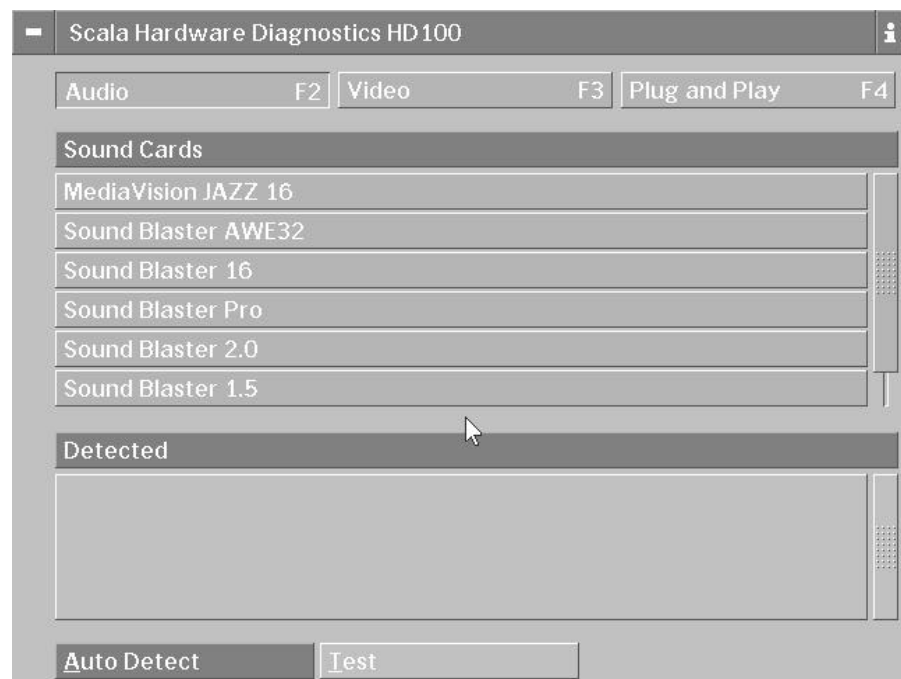
Diag uses only standard VGA modes and therefore will work on any VGA system, so even if you cannot boot Scala, Diag will work. If you are using Diag to investigate a prob-

lem with sound, be sure that your sound card is working properly outside of Scala, and have it connected to speakers or headphones before you start, so that you can hear the test results.

To start Diag, exit Scala, and if necessary exit Windows or OS/2 to DOS (not just a DOS shell) and enter:

```
d:
cd \scala
diag
```

When you start Diag, you see a standard Scala "splash" screen followed by the main Diag menu.
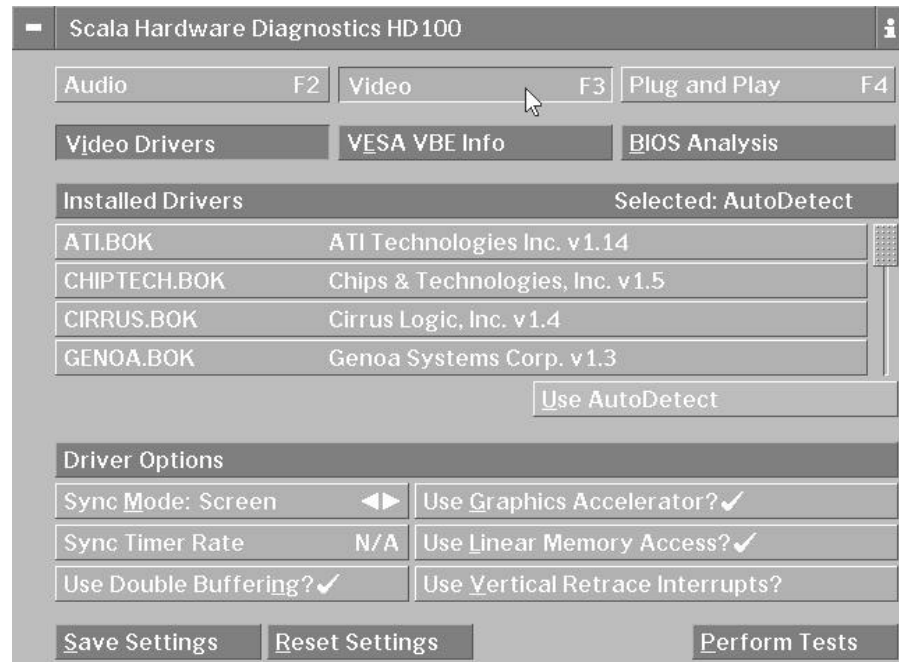

Testing sound settings

You can test your sound card here by first clicking the *AutoDetect* button. Once a sound card has been detected, you can test it by clicking the *Test* button. If the sound card is working and set up correctly, you should hear a voice say "Scala MultiMedia".

This menu is for testing purposes only. In order to adjust your sound settings, you must use the Sound EX configuration dialog in the **Options** menu. This is the same as the Sound dialog you saw during installation. You will need to revisit this if you upgrade your sound card.

Using the video diagnostics

To work with the video diagnostics, click *Video* at the top of the screen or press F3 to see the **Video** menu.

The *Video* button actually leads to three menus: the **Video Drivers** menu shown here, the **VESA VBE Info** menu, and the **BIOS Analysis** menu. The VESA and BIOS menus only display information that Diag has learned about your system.

If the Video Drivers menu doesn't appear

If you don't see the above menu, click the *Plug and Play* button. Most video drivers use the Plug and Play methods to detect the video hardware, and going to the **Plug and Play** menu forces these methods to be used. Then try to enter the Video menu again.

If you still have a problem, you should disable the Plug and Play mechanism by adding the following line to your AUTOEXEC.BAT:

```
set SCALA_PNP=NO
```

After adding this line and saving AUTOEXEC.BAT, reboot your computer, and then try to load the Diag program again and click the *Video* button.

Using the Video Drivers menu

The Video Drivers menu lists the video drivers that are available to Scala. Diag can probe the hardware to determine which video chip your graphics card uses, and thus what driver it needs. Diag can auto-detect by testing for each chip set, or, if you know the make of graphics chip your system uses, it can check only for that chip. Once the correct driver is established, you can test your graphics card's operation and set options for it.

Testing

AutoDetect is selected by default. To begin the test, click the *Perform Tests* button in the lower right corner of the screen. You see a dialog that allows you to change from fully automatic detection to single step detection. Normally, automatic detection should be

used. Click *OK* to begin the testing. You see the screen go black for several seconds and then Diag shows you which video chip it has detected and the name of the Scala driver. Please make note of what video chip has been detected and the name of the video driver.

Scala directly supports chips from the manufacturers of most popular graphics chips, including ATI, Cirrus Logic, and S3. A complete list of supported chips is at the end of this guide.

Choosing a resolution to test

To the right of the driver name, the *Select Mode* column shows the resolution modes available with this chip and driver. Press a number to test the corresponding resolution. This lets you check that each video mode is properly supported for Scala to take maximum advantage of your hardware.

The tests

The video tests Diag performs are in two groups. Between the tests in each group, press any key to continue. For each test, note any abnormalities.

Full-screen scrolling

Press "1" to start the tests. Diag loads a pattern, then scrolls the full screen. You should see line numbers scrolling upwards. Depending on how much video memory you have and what video mode you are in, this test may scroll a lot, or hardly at all.

Double-buffering

Diag displays a rapidly increasing number on a colored background. The background color should remain the same around the numbers as elsewhere.

Next, press "2" to begin the second set of tests.

Bitmap display

Diag fills the screen with the Scala logo.

Rectangle fill

Diag very quickly covers the screen with randomly sized rectangles.

Fill accuracy

Diag draws a solid gray rectangle with white frame in the middle of the screen. When you press a key, a solid black rectangle is drawn where the grey rectangle was. It should not affect the white frame.

Rectangle precision

Diag draws a triangular pattern of many dots (actually 1-pixel rectangles) within a large black rectangle.

Copy accuracy

Diag draws a Scala logo in the upper left hand corner of the screen. When you press a key, the entire screen should fill with copies of this logo.

Overlapping copy

Diag scrolls two rectangular regions in the middle of the screen in opposite directions. The left side scrolls down and the right side scrolls up. The rectangles should be all white when this test is complete.

Transparent copy

On a patterned background, Diag draws a gray and black curve in a rectangle on the left side of the screen. When you press a key, just the gray area should be copied to the right hand side of the screen. The area that was black on the left side should be showing the background pattern.

Reading and writing

Next, we have a little fun: Diag shows a small race car going around a race track. It should show scrolling in both directions and not leave any visual artifacts behind. (Note that this test is not available in all resolution modes.) This is the last test.

You should repeat these tests, taking notes of any problems, for each of the resolutions listed (press 3 to change resolution modes). Problems are generally obvious: the screen image flashes or becomes unstable, random-looking video "trash" or discoloration appears, or the machine freezes.

When you are done, press Esc to get back to the main Video menu. If all tests appeared to work properly and your video card was correctly auto detected, then Scala should run correctly. If you needed to select a specific video driver for DIAG to work correctly, you will need to take note of that video driver and insert the line:

```
set SCALA_VIDEO=<driver>.bok
```

in your AUTOEXEC.BAT file to select a specific video driver. See the last page of this guide for a full listing of video chips supported. Remember to restart your computer after any change to your AUTOEXEC.BAT file.

Options to correct problems

If you do encounter problems, you can try the following:

1. Try turning off the *Graphics Accelerator?* and/or *Linear Memory Access?* options at the bottom of the Diag's main Video menu. These are common techniques used in graphics cards today to speed up graphics performance, at the cost of also increasing potential compatibility problems.

    Scala tries to take advantage of these options when they are available. You can repeat the tests above after disabling one or more options and see if there is any difference. (Some graphics cards require linear memory access to be on, so you may not be able to switch that option off.) When you get the system to work correctly for you, be sure to note the settings for your AUTOEXEC.BAT file. Disabling these features may slow down the performance of Scala, but it can often get around a particular problem in trying to run Scala.

2. Try adjusting the *Sync Mode* options (these include the *Sync Timer Rate* and *Use Double Buffering?* options.) These options also are available in the Scala MultiMedia **Options** menu and thus are described in chapter 16 of the *User's Guide*.

3. You will get bad results if the wrong video driver is used. Instead of using *AutoDetect*, you may select a particular video driver manually by clicking on that driver and saving the settings. If you don't know what chip you have on your graphics card, you can use the **BIOS Analysis** menu to tell you.

4. If none of the chip-specific drivers work for your system, you can use the VESA driver. VESA is a standard video driver, which most cards support in their BIOS. By clicking on the *VESA VBE Info* button, you can check to see if your card has a VESA BIOS. If it does, you can go back to the video settings and manually choose

VESA.BOK in your AUTOEXEC.BAT file. If you do not have a VESA driver for your card installed, you should check the software that may have come with your computer or graphics card. You may want to contact the graphics card manufacturer and request a VESA driver for the card.

5. If you are running Scala from Windows or OS/2, the drivers these operating systems provide for your graphics card may not support the advanced graphics features that Scala uses. If you are able to run Scala from DOS, but not from Windows or OS/2, or your Windows screen is garbled after running Scala, you should contact your graphics card vendor to see if they have an updated Windows or OS/2 video driver for your card.

    Often you can work around these features by disabling the advanced features such as *Graphics Accelerator?*, *Linear Memory?*, and/or *Use Double Buffering?*, but your performance will suffer. The best solution is to get an updated video driver for your card, or to run Scala straight from DOS. Information on video drivers is often available from CompuServe®, America Online™, or the manufacturer. Diag can display the telephone and fax number of most manufacturers in the **BIOS Analysis** menu, as well as the BBS number, FTP address, and World Wide Web address of many. If you have a problem, check to see that you have the latest driver from the manufacturer.

6. If none of the Scala video drivers seems to work for you, and your card does not have a VESA BIOS, you should try the Universal VESA BIOS Extension (UniVBE) driver.

    Scala will automatically default to using UniVBE only if it cannot detect a known video chip or VESA driver. UniVBE will attempt to detect your video chip automatically. If this does not work, you may manually run a program called UVCONFIG in the \SCALA\CONFIG directory. Enter

    ```
    uvconfig -?
    ```

    for instructions on how to set up the UniVBE driver manually.

If you have tried all of the above and are still not able to get things to work, contact Scala at the phone and fax numbers, and the email and FTP addresses listed on the separate card in the Scala package. Scala's World Wide Web address is:

http://www.scala.com

Additional information for advanced users is available in the README.TXT file on the CD, or at our Web site.

How to Uninstall Scala

If for any reason it becomes necessary to remove Scala from your system, you simply need to delete the Scala icons and program group from your desktop. No files were actually loaded to your hard drive and no modifications were made to any system files (except for those that you may have manually made yourself as discussed earlier in this guide).

Scala video drivers

Scala has specific drivers (<driver>.BOK) for the following video chips:

ATI Technologies, Inc. (ATI.BOK)
68800 'Mach 32'
88000 'Mach 64'

Chips & Technologies, Inc. (CHIPTECH.BOK)
F65510	F65520
F65530	F65545

Cirrus Logic, Inc. (CIRRUS.BOK)
GD5420	GD5422
GD5424	GD5426
GD5428	GD5429
GD5430	GD5432
GD5434	GD6205
GD6215	GD6225
GD6235	GD6245

Genoa Systems Corp. (GENOA.BOK)
GVGA

Integrated Information Technologies, Inc. (IIT.BOK)
AGX-15	AGX-16

S3, Inc. (S3.BOK)
86C911	86C924
86C928	86C801
86C805	Vision864
Vision964	Vision868
Vision968	Trio32
Trio64	

Tseng Labs, Inc. (TSENG.BOK)
ET3000	ET4000
ET4000/W32	
ET4000/W32i	
ET4000/W32p	

Weitek Corp. (WEITEK.BOK)
5086	5186
5286	P9100

Western Digital Corp. (WESTERN.BOK)
90C00	90C10
90C11	90C20
90C22	90C24
90C26	90C30
90C31	90C33