FIRST
T H I N G S
FIRST

Welcome to MMCD V2.
Simply click on the arrows
below to discover more about
the latest updates to this CD
and the products included

First, click here to
check out the LAST
MINUTE additions
to MMCD V2

Products

Drivers

Software

Language
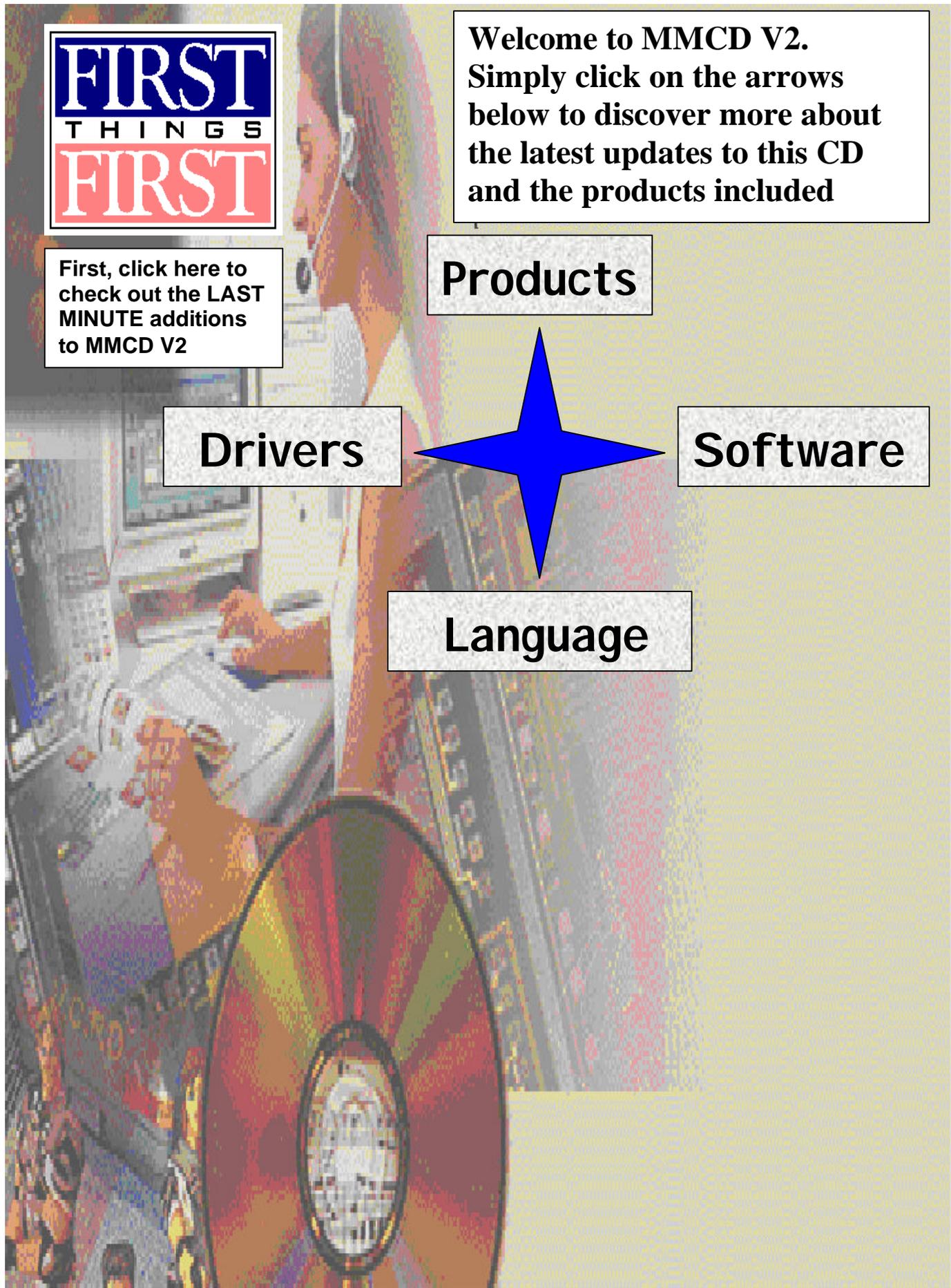
Tips & Troubleshooting

Music

The music files used in this MMCD are MIDI files. You will need a system capable of playing back MIDI files, or you will be required to install the relevant sound card purchased with this MMCD to listen to the MIDI songs.

Turning off the Music within MMCD

The music can be turned off, or the song style can be changed by clicking on the relevant button at the bottom of each MMCD screen. Also, when entering the Cakewalk page or FUN.EXE page the music will automatically be turned off, in order to allow other music files to take over and play alone.

Turning off the music when using Web Links

When you are using web links inside Acrobat Reader PDF documents, it is wise to turn off the music because the web sites you will be accessing may include music files as well.

Turning off the music when playing wave files (for example: in links contained in 'MIDI Explained' and 'Wave Files Explained' documents in the MMCD Library)

In the MMCD Library you will see links to documents explaining about 'MIDI' and 'WAVE'. Within both of these PDF documents are links to wave files. It is suggested you turn off the MMCD background music before clicking on these links.

Some FUN Games muting the music in your system

When you enter the FUN Games menu, and then choose a particular game, if you experience 'no sound' then check the sound settings of that particular game. Some games may temporarily affect your sound system settings, and upon exiting the game, and then exiting the MMCD program you may find that your sound is muted for other programs, or you cannot play MIDI or WAVE files. In this instance it is best to re-start your system. Your system's sound settings will then be re-set and will work properly again. At this point remember the name of the game you were playing when this problem occurred, and *never play that game again!* Please remember that these games are freeware or shareware and some of them are quite old DOS based games. As such, MMCD (or the dealer or store where you purchased MMCD and its related hardware product) do not guarantee the quality of compatibility of any of the 99 Games contained in this MMCD.

If you have previously installed Acrobat Reader or Apple Quicktime Software on to your system

We have written the MMCD so that the installation screens for Acrobat Reader or Apple Quicktime will appear each time you run the MMCD program. This is because the other alternative is 'auto-detection'. But the problem with auto-detection is that is is not sensitive to 'versions'. Therefore due to the fact that these software's are new versions, and that upon installation they will display messages warning the user that previous versions are installed to your computer, we feel it was wise to leave the option to install these software's without 'auto-detection'.. Once installed simply click the continue **'>'** icon to proceed through the MMCD. These software's are located under the following directories…

d:\eng\acr\win95\

CD-ROM drive – language – Acrobat – Operating System

d:\appleq\win95

CD-ROM drive – Apple Quicktime – Operating System,

(Please change the directories as suit your particular language and operating system).

Wave file links in PDF documents not playing when using Acrobat Reader for Windows 3.1/NT.

In some of the documents contained in this CD there are links to wave files (.wav) which either play songs in different types of synthesis, or play the old wave files used on MMCD V1. However, we have noticed that Windows 3.1, and some Windows NT users may not be able to play these files from within Acrobat Reader. (For Windows '95 users the files/links play fine). We believe the fault in this lies down to the version of Acrobat Exchange software used to transfer the documents from WORD to PDF. We believe that the new Exchange software will be able to fix this bug for MMCD V3. In the meantime, if you're desperate to hear these wave files then take a look at the directory called **'misc'** where you'll find them all.

EWFFM = Song played using FM
EWFHWT = Song played using hardware wavetable
EWFSWT1 = Song played using software wavetable 1
EWFSWT2 = Song played using software wavetable 2
EASTERN = MMCD V1 Eastern/oriental song
JAZZ = MMCD V1 Jazz song
HIPHOP = MMCD V1 HipHop song
REGGAE = MMCD V1 Reggae song

What are the blue or red borders around words for?

Within the Acrobat PDF manuals and documents you will notice some words have blue or red borders (boxes) around them. These indicate links to other parts of the same document, or another document altogether. To learn more about how to get the most out of Acrobat Reader, read the readme.pdf document that accompanies the Acrobat Reader software and is usually located in the 'Acrobat3' directory on your hard drive.

New YAMAHA SA2 & SA3 Installation drivers

The new installation drivers for the YAMAHA SA2 and SA3 MegaWave Sound Cards are in 6 languages. For further information on these drivers we have included the YAMAHA readme files in a folder located under   \eng\yamread\

The 6 languages for this YAMAHA Driver set are ; English - German - Spanish - French - Italian - Japanese.   Our 6 main MMCD languages are ; English - German - Spanish - French - Russian - Chinese.   Therefore we have arranged these drivers as per the following page…..

- **English/German/French/Spanish** drivers located in their specific folders (see drivers/language document
- **Russian & Chinese** MMCD folder use English drivers as default
- **BONUS Japanese & Italian** drivers are located in folders named 'jap' and 'ita' respectively on the root directory of this CD-ROM. Therefore our Japanese & Italian users can also enjoy native language installation of the YAMAHA SA2 or SA3 sound cards!

Thank you for choosing MMCD and its associated products..

Products

In this product section we will explore some basic terminology's relating to the products contained in this CD-ROM, as well as giving you an insight to future products & trends.

Click the icons below to continue.

Sound Cards

VGA Cards

DATA UPDATE

M/B

What's New?

Motherboards

NEW ZIP Drives – Don't leave home without them!
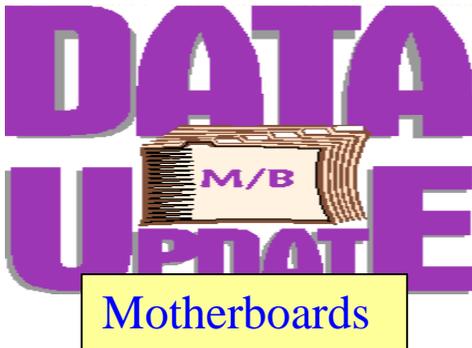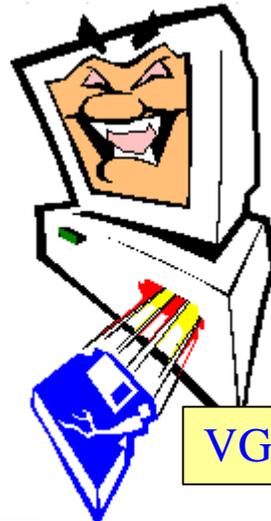
Sound Cards

Sound cards, and associated upgrades, make up the most of the MMCD. The range included comes from the best names in the industry, and start from the competitively priced ESS1688 through to the high-spec Yamaha SA2 & SA3 chipsets. The model that will best suit your needs and your pocket will very much depend on the environment you'll use this sound card in. To help you understand more about sound cards we will investigate some of the technologies used.

16-Bit

Almost every sound card available today is16-bit. This means that the BUS used is ISA BUS, which basically handles 16 bits of information simultaneously. Based on this assumption anything higher than 16-bit must be faster because more information is being processed simultaneously. To meet this, a new trend in sound cards is emerging, namely 32-bit Sound Cards. These are based on the 32-bit PCI BUS and should be available around the middle of 1997. The major obstacle in developing 32-bit PCI Sound Cards is **compatibility**. ISA BUS has been used for so long as the 'standard', to change to 32-bit also means a change in the way games are manufactured and the way operating systems & associated softwares are developed.

Half Duplex / Full Duplex?

Half Duplex means **one-way-communication,** while
Full Duplex means **two-way-communication.**

Full Duplex has two major advantages over Half Duplex….

1. The sound card can record and playback at the same time – Good for recording of multi-track MIDI Songs – You can listen to the tracks already recorded, while at the same time playing & recording a new track.

2. It enables you to listen to one party when using the sound card as part of a multimedia application such as **Internet Phone**, and allowing you to talk at the same time.

Sampling Rate

The rate at which a sound card samples (records) determines the overall quality of that recording.   The sound cards included on this MMCD can record at rates between 4KHz to 48KHz. As a guideline Commercial Audio CD's are recorded at 44.1 KHz. So you can see that the quality of sample rate on all sound cards is as high as the CD you buy at the music store.

Voices

The amount of voices each sound card can achieve represents the amount of notes (each note representing a 'voice') that can be played simultaneously. Being able to play multiple voices or notes at the same time is important when playing back MIDI song files or sound tracks from computer games.   Not having enough voices to play back this type of music may result in notes being cut-off or not playing at all, which can make the music sound disjointed or inferior.

Operators

Operators can be thought of as the 'workers' of an FM synthesis sound chip.   Essentially the more operators you have producing the synthetic FM sound, then the **richer** that sound will be. So more operators equal a better sound.

FM or Wavetable? (Click here to review this

document)

Plug & Play (Click here to review the 'Plug 'n' Play' document)

General

All of the sound cards covered in this MMCD include an **MPU401** interface (this is the standard MIDI interface), and are fully compatible with Sound Blaster, Sound Blaster Pro, Windows Sound System & DirectSound, MPC, MPCII, & Adlib.

They all either include the standard **26-Pin Hardware Wavetable Upgrade** port, or have integrated Hardware wavetable built-in.

VGA Graphic Cards

All of the VGA Graphic cards covered in this MMCD are based on the PCI BUS.   As today's video and games industry places more and more burden on the video system contained within your computer, we can see the technology in VGA Graphic cards improving to keep up with these changes.   Here we will review some of the major components of a VGA Graphic Card…

32-Bit or 64-Bit

Actually, all of the cards covered in this MMCD are 64-Bit PCI Graphic cards, and as with sound cards, the basic theory is "more bits = Faster".   But, to truly work in 64-Bit operation, a graphic card requires a minimum of 2MB of card memory.

Colors

All of the cards included are capable of producing graphics up to 16.7 million colors – In other words 'true color'. But there is a trade-off involved. The more colors you use means the lower screen resolution you can achieve. Higher colors also mean that when a screen re-draws itself (this happens constantly) then your system and graphic card has to work harder to re-draw each of the 16.7 million colors as opposed (let's say) to 256 colors. In practice 256 colors is adequate for most users and strikes a nice balance between *great graphics & fast graphics…*

DRAM Amount & Type

The more DRAM you have on your card the faster it will run, the more colors, or higher resolutions it will support. As mentioned previously, with 1MB DRAM a 64-Bit card actually only works in 32-Bit mode.   64-Bit mode is only achieved when upgrading to 2MB DRAM.   For the different types of DRAM, the graphic cards included here are running on 2 different types. **EDO** DRAM means **E**xtended **D**ata **O**utput. This type of DRAM is faster than traditional **F**ast **P**age (or '**FP**') DRAM, and is used on the MegaVision3D Trident 9685 Graphic Card. A new type of DRAM is used on the Mega3D Cirrus Logic 5464 Graphic card. This DRAM is called **RAMBUS** and provides a much faster performance by expanding the data bandwidth from the EDO standard of 200Mbps (megabytes per second) to the RAMBUS standard of 600Mbps *(**Note: These figures are guidelines only and will depend on the actual card and testing environment).*

MPEG

MPEG is the main standard for PC based movies. Having a card which supports MPEG means that you can enjoy watching movies on your PC using the latest video CD's which fit straight into your standard CD-ROM drive. All of the cards included here include support for MPEG, although all are software driven. The Trident brand card uses Xing MPEG Software, while the Cirrus Logic brand uses CompCore MPEG ('SoftPeg') Software. Software MPEG technology has vastly improved over the past years and the results using a Pentium PC with a minimum of a 4x quad speed CD-ROM can be as high as 36fps (normal video cassette tape runs at approximately 26 fps). Hardware MPEG cards are do provide a much better performance, but these cards are usually very expensive in comparison.

Direct3D Compatible?

Both of the cards included on this MMCD are Direct3D compatible.   Direct3D is a standard developed by Microsoft to standardize the 3D-video technology used by software & hardware video-graphic product developers. Due to the fact that Microsoft is the leading O.S. sold on today's computers, this standard is therefore the one to look for when buying a 3D-video card. But, how the hardware developers approach Direct3D differs. We can say that the general trend in 3D-video is towards **Hardware 3D Video Acceleration**   This is because to produce 3D graphics requires an enormous amount of processing power. Although, the MegaVision3D Trident 9685 uses software technology, it does this very effectively by blending this technology with it's own video accelerator hardware technology to provide a fast performance.   You can understand this better by reading about **Direct3D in the MegaVision3D manual**   The Mega3D Cirrus Logic 5464 is a new breed of 3D Graphic Card, which makes the first leap in to hardware 3D rendering.   It also utilizes **RAMBUS DRAM** to optimize performance.

New Sound Cards

Here's a brief look at some of the new sound cards you can expect to see on future versions of the MMCD, or you can check these out on the MMCD World Wide Web Page.

www.mmcd.com

Yamaha SA3 – Integrated 3D

Due for release in March 1997 this card uses the new YAMAHA SA3 chipset. The layout of the sound card is very similar to the model # 2521/2526 YAMAHA SA2 card covered in this MMCD, however the difference is that YAMAHA have integrated the 3D technology into the SA3 chipset complete with software control over the 3D sound effect (whereas the model # 2521/2526 V1 uses external **'Binaura 3D'** technology). This model uses the same new drivers as those contained in this MMCD.

Ask for Model # 2526 V2

Last minute Update to YAMAHA MegaWave Sound Cards.   March.5th 1997.

We are pleased to announce the release of the new YAMAHA SA3 (719) chipset to take the place of the **MegaWave Gold** sound card.   The SA3 chipset is pin-compatible with the existing SA2 (718) chipset used on Model # 2521 v1 – In other words it uses the same PCB (<u>P</u>rinted <u>C</u>ircuit <u>B</u>oard) design, and layout as the previous SA2 model.

The new sound card to incorporate the YAMAHA SA3 (719) chipset is **Model # 2526 v2**   The added features are **Advanced 3D Sound** built into the SA3 chipset (rather than the *Binaura* 3D Sound Technology Used on Model # 2526 v1). This new Advanced 3D Sound feature adds software control to the 3D Sound.   Upon installation the drivers will recognize the SA3 chipset and assign 3 control buttons to the Willowpond MediaRack utility software.

When the SA3 sound card & driver are installed, a button for **3D On/Off** will appear on the mixer section of the Willowpond MediaRack utility. Also controls & sliders for **Bass** and **Treble** will appear.

The software drivers for the SA3 chipset are identical to those used by the SA2 chipset.   Therefore installing the drivers from the YAMAHA SA2 page on the MMCD is easy for both models. As stated previously, the drivers will automatically detect the chipset type and assign 3D sound controls automatically to the Willowpond or Y-STATION MediaRack utilities, if necessary.

Note: Similar controls for 3D, Bass & Treble will also appear on the YAMAHA Y-STATION Utility included with these sound cards

ESS1698 Cost Saver

ESS are about to release a new low cost chipset called ES1698. This product is a 16-bit sound card, half duplex, with a 20-voice, 72-operator FM synthesizer, MPU401 interface and compatible with Sound Blaster, Sound Blaster Pro etc.   This product will be available in March 1997.

Ask for Model # 2019

32-Bit PCI

New PCI Sound cards will emerge in 1997, and there are plans for new YAMAHA & OPTi brand models for release in mid-1997. Please contact your MMCD product dealer or sales representative for further information.

New VGA Cards

Trident 3Dimage 975™

Trident 3Dimage 975DVD™

The 3Dimage 975™ improves on the MegaVision3D (Trident 9685) by adding hardware 3D video accelerators, and still retains the TV-Out feature to PAL or NTSC.

The 3Dimage 975DVD™ chipset further offers optional DVD Player support.

Both models are designed around the new generation of Intel MMX Pentium Processors, and are due for release in April 1997.

Ask for model # 5935

MMX Series Motherboard

A great new series of MMX Motherboards, specifically designed for Intel's New Generation Multimedia 'MMX' Processors, are available now from your local dealer or sales representative. Check out these specifications..

Model # 7502 V3 ~ 'MMX Premium'

- Intel i430VX Chipset
- Supports Intel/AMD/Cyrix Pentium Processors up to 200MHz
- Supports P55C MMX Series Processors
- Dual Voltage Regulators
- 256k or 512k Pipeline Burst Cache on board with module upgrade socket
- 4 x 72-Pin SIMM & 2 x 64-Bit DIMM Sockets for true memory upgrades
- DALLAS RTC
- Supports USB & PS2 Mouse- E-IDE x 2, FDD & UMC Fast MIO with ECP/EPP parallel port on board
- AWARD BIOS

Model # 7502 V4 ~ 'MMX Basic'

- Intel i430VX Chipset
- Supports Intel/AMD/Cyrix Pentium Processors up to 200MHz
- Supports P55C MMX Series Processors
- Dual Voltage Regulators
- 256k or 512k Pipeline Burst Cache on board
- 4 x 72-Pin SIMM
- Supports USB & PS2 Mouse
- E-IDE x 2, FDD & UMC Fast MIO with ECP/EPP parallel port on board
- AWARD BIOS

Model # 8100 ~ Pentium Pro

- Intel i440FX Chipset
- Supports Intel Pentium Pro CPUs 150 ~ 200MHz
- ZIF Socket 8 & Voltage Regulator Module (VRM) 8
- Baby AT Size
- Supports Intel CPU's built-in 256k/512k Level 2 cache
- 4 x 72-Pin SIMM
- Supports USB, PS2 Connector on board
- E-IDE x 2, FDD & UMC Fast MIO with ECP/EPP parallel port on board
- AWARD BIOS

Model # 8210 ~ Klamath Motherboard

- Intel i440FX chipset
- Supports Intel Klamath CPU 233/266MHz (Bus freq.60/66MHz)
- ATX Form Factor
- VRM Module
- 4 x 72-Pin SIMM supporting FP / EDO / Burst EDO SIMM
- Supports USB / PS2 Mouse / PS2 Keyboard
- E-IDE x 2, FDD & UMC (8669) Fast MIO with ECP/EPP parallel port on board
- DALLAS RTC

Model # 7511 ~ Intel 430TX Solution

- This is very new, so we have no details just yet, but ask your sales representative – they may know about it by the time you read this?
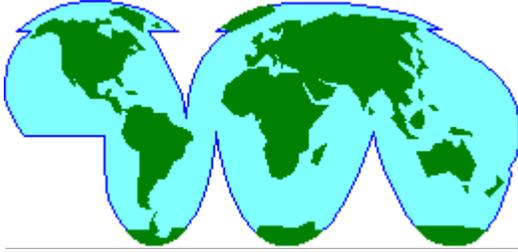
Language

For this version of the MMCD we are working with 6 different 'main' languages. Where possible we have included different language manuals, software's and installation drivers. It is our aim to further improve on this and add more language documents & software's, as they become available. It is also recommended you visit the **www.mmcd.com** web site where you can check out the latest language editions immediately, and download these as you please.

The 6 'main' Languages included on this version are **English – German – Russian – Chinese – Spanish – French**. The documents & software's included as details in the following table. Any document or software not mentioned here would be defaulted to the English version. In addition to this we have included extra sound card drivers (for model **2521/2526** in Italian & Japanese. Please read the relevant **driver's** document concerning this.

What Languages are available?

English ~ German ~ Russian ~ Chinese ~ Spanish ~ French

[Language Identification Table]

Language	Manuals	Willowpond Software	Net Meeting	Acrobat Reader
German	All except WP Media Launcher / WinChime	Yes	Yes All versions	Yes ** (see note below)
Spanish	Only WP MediaRack / Presto Arranger / Wave Shaper	Yes	Yes for V1 & Beta 2 Win 95 (No Win NT)	Yes ** (see note below)
French	Only WP MediaRack / Presto Arranger / Wave Shaper	Yes	Yes for V1 & Beta 2 Win 95 (No Win NT)	Yes ** (see note below)
Russian	No	No	Yes Version 1 (Beta V2 No)	No
Chinese	No	No	Yes All versions	No

Notes:

- ** Acrobat Reader Version 3.0, in English, is used as the default Reader for the manuals and documents for the MMCD (you're probably using this now!). There are different language versions of this software available, and included on this MMCD. The different language versions are **German – Spanish – French**. However, these language versions are V2.1 and not capable of utilizing the links to sound files (.wav) or World Wide Web Links using Internet Explorer. The English Version 3.0 of the Acrobat Reader is very easy to use, but if you wish to use your own native language version, then you can locate these software's under the following directories

- *Please note: You will not be able to utilize the links mentioned beforehand...*

   /ger/acr/   (German Versions)
   /spa/acr/   (Spanish Versions)
   /fre/acr/   (French Versions)

   (Under each of the directories there are sub-directories for Windows 3.1 / Windows 95 & Windows NT versions in the above stated languages)

Alternatively, you can visit the Adobe Web Site on
www.adobe.com to see if your native language Version 3.0 is available.

Other Language Installation Drivers

The setup of this MMCD directory tree is looking forward to a time where we can include many different language drivers for each product. This will take some time because of the intensive testing & evaluation required. Where there are no specific language drivers – English will be substituted as the default driver.

For this version of the MMCD (V2) there are 2 products that have multi-language drivers…

1. **YAMAHA SA2 (718) MegaWave Sound Card.** The drivers for Windows 3.1 and Windows NT3.5 & NT4.0 are available in English, German, French, Spanish, Japanese & Italian.

   The combined DOS/Windows 3.1 driver uses the same set of instructions for all 6 languages, so it is only located under the English (**eng**) directory. By clicking on the relevant button on the MMCD SA2 (718) product page, you will then be prompted to choose your specific language before continuing with the installation.

   The Windows NT 3.5 & NT4.0 language drivers are located in separate language directories. For Japanese & Italian Windows NT drivers we have included special directories under '**jap'** and '**ita**' where you can find the specific Windows NT drivers.

2. **ESS1868 Sound Card** ESS tell us this new Windows '95 driver is also Multi-language, although we haven't been able to determine *how?* Let's hope it works in your language OK? We know it works in perfect in its English version.

CD-ROM Directory Tree Method

The method for naming software driver directories is as follows…

d : \ e n g \ 1 8 6 8 \ d o s

Your CD-ROM Drive ~ Language ~ Product ~ O.S.

Installation Drivers

- Drivers – An overview

- Where to find Windows '95 & NT 3.5 / 4.0 Drivers

- DOS Only Drivers

- OS2 Drivers

- Other Language Drivers

- Other VGA Drivers

Drivers – An Overview

This MMCD CD-ROM has been written & developed to make driver installation as convenient & easy as possible.   With this version we have included more drivers & software utilities, and have stored these drivers in easy-to-find directories.   The directory path guide is as follows….

<div align="center">

d : \ e n g \ 1 8 6 8 \ d o s

</div>

Your CD-ROM Drive ~ Language ~   Product ~   O.S.

As you can see we have written folders in a convenient and easy to understand manner which guides you through your specific language, the product (by chipset number), and then your O.S. (Operating System). The codes for the 6 'main' MMCD languages are: **eng (English) : ger (German) : rus (Russian) : chi (Chinese) : spa (Spanish) : fre (French)**.   However, we have also included some extra bonus drivers for the YAMAHA SA2 (718) sound card in Italian & Japanese.   These drivers can be located under the relevant directories: **ita (Italian)** and **: jap (Japanese)**

Note: Where a specific language driver is not available it is substituted with the English driver as default.

Where to find Windows 95 & Windows NT 3.5 / 4.0 Drivers?

Drivers for DOS or Windows 3.1 are usually '.exe' or '.bat' files. These are called 'application' files and contain a software application program, which guides you through the setup. However, the Windows 95 and Windows NT operating systems (themselves) act as the 'application' program for their specific drivers. With Plug 'n' Play technology Windows 95 can auto-detect the new hardware and assign one of its own embedded drivers to it. This is very convenient, but the drawback is that quite often these embedded drivers are rather old. To ensure you have the latest driver updates it is recommended that you use the 'Manufacturers Drivers' contained on this MMCD. Windows will prompt you to either use its embedded drivers or use those from the manufacturer. At this point you need to direct Windows to the location of those drivers. The location table follows for your reference.

(Please also refer to the **Plug 'n' Play** document for more detailed information).

Win 95 & NT Driver Location Table

PRODUCT / CHIPSET CODE	COMMAND LINE PATH
ESS1868	d\eng\1868\win95
ESS1868	d\eng\1868\winnt35
ESS1868	d\eng\1868\winnt4
OPTi931	d:\eng\931\win95
OPTi931	d:\eng\931\winnt35
OPTi931	d:\eng\931\winnt4
YAMAHA SA2/OPL4 *MegaWave*	d:\eng\sa2718\win95
YAMAHA SA2/OPL4 *MegaWave*	d:\eng\sa2718\winnt35
YAMAHA SA2/OPL4 *MegaWave*	d:\eng\sa2718\winnt4
YAMAHA SA2/OPL4 *MegaWave*	d:\ger\sa2718\win95
YAMAHA SA2/OPL4 *MegaWave*	d:\ger\sa2718\winnt35
YAMAHA SA2/OPL4 *MegaWave*	d:\ger\sa2718\winnt4
YAMAHA SA2/OPL4 *MegaWave*	d:\fre\sa2718\win95
YAMAHA SA2/OPL4 *MegaWave*	d:\fre\sa2718\winnt35
YAMAHA SA2/OPL4 *MegaWave*	d:\fre\sa2718\winnt4
YAMAHA SA2/OPL4 *MegaWave*	d:\spa\sa2718\win95
YAMAHA SA2/OPL4 *MegaWave*	d:\spa\sa2718\winnt35
YAMAHA SA2/OPL4 *MegaWave*	d:\spa\sa2718\winnt4
YAMAHA SA2/OPL4 *MegaWave*	d:\ita\sa2718\win95
YAMAHA SA2/OPL4 *MegaWave*	d:\ita\sa2718\winnt35
YAMAHA SA2/OPL4 *MegaWave*	d:\ita\sa2718\winnt4
YAMAHA SA2/OPL4 *MegaWave*	d:\jap\sa2718\win95
YAMAHA SA2/OPL4 *MegaWave*	d:\jap\sa2718\winnt35
YAMAHA SA2/OPL4 *MegaWave*	d:\jap\sa2718\winnt4
ESS1688	d:\eng\1688\win95
ESS1688	d:\eng\1688\winnt35
ESS1688	d:\eng\1688\winnt4

TRIDENT 9685	**d:\eng\9685vga\win95**
TRIDENT 9685	**d:\eng\9685vga\winnt35**
TRIDENT 9685	**d:\eng\9685vga\winnt4**
CIRRUS LOGIC 5464	**d:\eng\5464vga\win95**
CIRRUS LOGIC 5464	**d:\eng\5464vga\winnt35**
CIRRUS LOGIC 5464	**d:\eng\5464vga\winnt4**

DOS Only Drivers

For some of the sound cards there are combined DOS & Windows 3.1 drivers, however we do realize there are some DOS only users still out there!   Where possible we have included the DOS only drivers, and on this MMCD we have written a special DOS Only driver for the OPTi931 sound card – This card does not normally have this specific driver when sold by other manufacturers.

OS2 Drivers

OS2 Drivers are also included, where available, under directories as follows; - **d:\eng\1868\os2**

Other Language Drivers

The setup of this MMCD directory tree is looking forward to a time where we can include many different language drivers for each product. This will take some time because of the intensive testing & evaluation required. And, as stated previously, where there are no specific language drivers – English will be substituted as the default driver. For this version of the MMCD we have multi-language drivers as follows: -

➢ **YAMAHA SA2 (718) / OPL4-ML.** The drivers are included in English / German / Spanish / Italian / Japanese & French. For the Windows 3.1 & Utility installation, the start-up screen will ask you what language to install, and from then on all screen commands are in that chosen language, and the YAMAHA **'YSTATION'** utility is also installed in the chosen language.

➢ **ESS 1868.** ESS tell us their new Windows '95 driver is multi-language, although we haven't had time to figure this out yet! But we know it works perfectly well on Windows '95 in English.

Other VGA Drivers

Drivers for programs such as AutoCAD, WordPerfect, Symphony, Lotus 1-2-3, can be located under the directory named 'oth' (for example – **d:\eng\9685vga\oth**) and the relevant installation instructions can be found in 'readme.txt' files located there.

Update using the Web Page

Finally, you can update your drivers by visiting the MMCD World Wide Web Page on www.mmcd.com and downloading new drivers.

Alternatively you should look at the specific product manual and locate & click on the www page for the specific chipset manufacturer, where new drivers may also be available.

Thank you.

Software

Some top class softwares are included on this MMCD, and we will introduce more on new MMCD versions. In the meantime, we will brief you on any updates to those softwares contained herein.

CAKEWALK

MUSIC SOFTWARE

For this version we have included a copy of Cakewalk's DEMO CD, but it was so large that we could only include 1 of the 2 demo songs included on the master Cakewalk demo CD.
For more info please check out the web site

www.cakewalk.com

Adobe® Acrobat® Reader 3.0

Important Note: *After installing the Acrobat Reader software from the MMCD, you should exit the MMCD program, and then re-start MMCD again for this software to take effect. If you do not re-start MMCD you will not be able to immediately view the manuals & other PDF documents.*

The default Acrobat Reader included on this MMCD is English V3.0. Also included on the MMCD are V2.1 versions for German, Spanish & French (however these versions do not work with the (.wav) file links, or web links contained in some of the MMCD manuals & documents). To see whether V3.0 is available in your language check out the following web sites

www.adobe.com
www.adobe.com/prodindex/acrobat/readstep

Setup Acrobat Reader for Internet Explorer

To utilize the web links in the Acrobat PDF documents on this MMCD you will need to have both Acrobat Reader V3 and Internet Explorer installed to your system. When you first use Acrobat Reader, and click on the web link, you will be prompted to select the 'default' browser. When this prompt/box appears direct the path to the Internet Explorer **iexplore.exe** program application, which usually is found under the directory **C:\program files\internet explorer** (in Windows '95 – This may vary according to your O.S. and chosen installation directory)

WIZ Multimedia Software is brought to you by Creative Software Technologies of Australia.   CST is in the forefront of the software industry providing Microsoft compatible software add-ons for internet phone & video conferencing.   A new product from CST soon to be released will be the **CollabOrator 9000 Series Server.**

Details as follows, or you can visit the CST web site on

www.cst.com.au

Creative Software Technologies Pty Ltd

The next generation telecommunications solution provider

If you want to

- **reduce the cost of inter office and long distance telephone calls**
- **significantly reduce travel and accommodation costs**
- **achieve all this with existing personal and office computers you will want to read on.**

From simple low cost long distance Internet telephony through to Internet video conferencing from the desktop, Creative Software Technologies provides the solutions. The product range includes:

Read on to find out more…

PhoneCall

PhoneCall is arguably one of the most exciting new computer applications on the market. It interfaces you to low cost long distance Internet telephony.   It uses a standard sound card in the PC for voice and calls may be made from computer-to-computer, from computer-to-phone and also from phone to phone as shown below.

Talk with your Internet Service Provider today to understand how you can $ave on communications costs.
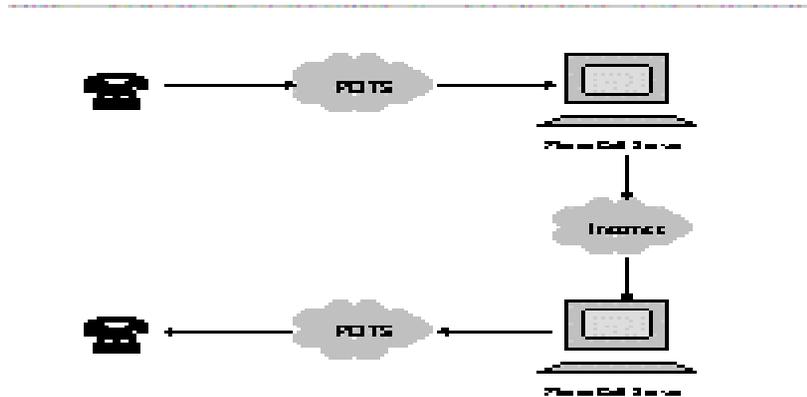
CamWiz Works

CamWiz Works is the most comprehensive digital camera and PC conferencing software suite on the market. CamWiz Works was awarded Best New Media Product at PC 96 in September, and the complete CamWiz Works package is available today.
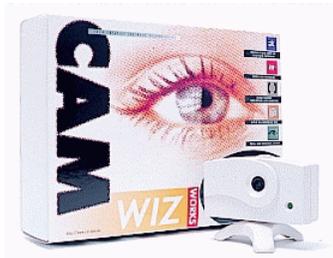
CamWiz Works is revolutionising office communications by providing:

- Internet telephony
- video conferencing and data sharing over normal telephone networks and the Internet
- video transfer using a notebook over the GSM mobile network
- multiparty Internet video conferencing using Microsoft NetMeeting
- low cost photography and 3-D scanning and
- operation with other applications such as CUSeeMe and Internet Phone.

CST-CollabOrator System 2000 Plus
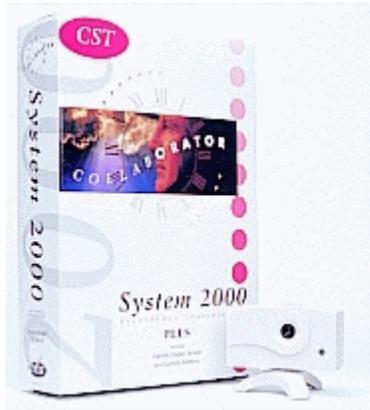
CST-CollabOrator System 2000 Plus uses a specially designed voice card for premium quality audio and may be used in conjunction with a CamWiz camera to provide face to face Internet communications with:

- colleagues
- regional and interstate offices
- specialist staff
- clients
- franchisees
- consultants
- staff or students at distributed campuses

The System 2000 Plus also provides Internet telephony and a comprehensive range of online presentation and work tools including whiteboard and application sharing. It can be installed on your standard PC today.

CST-CollabOrator System 9000 - Internet Communications Server

CST-CollabOrator System 9000 servers are low cost, high performance Internet telephony, video and data conferencing Internet communications servers. The System 9000 family incorporates international standards and delivers telecommunications over IP networks. These servers can be deployed within the workgroup Intranet or at the Service Provider's point of presence.

The System 9000 servers facilitate multiparty Internet conferences which include the following services:
- telephone to telephone calls via the Internet/Intranet
- PC to telephone calls via the Internet/Intranet
- multipoint voice, video and data calls over IP networks
- multipoint video and data calls over IP networks
- multipoint data calls over IP networks

About Creative Software Technologies Pty Ltd

Creative Software Technologies is an Australian company and provides help desk facilities accessible by phone or the Internet from its Oakleigh offices.

Please feel free to visit the CST website at www.cst.com.au   for weekly prizes, free downloads, evaluation software and other product information, which may be of interest.

The 99 Games under the FUN page of this MMCD are freeware or shareware. As such, MMCD (or the dealer or store which provides MMCD and its related hardware products), do not guarantee the compatibility or quality of these games.

If you experience problems running **fun.exe** within MMCD or Windows, try exiting to DOS and running the program from there by typing **d:\fun**   ('d' represents your assigned CD-ROM drive letter – change as necessary)

If you experience problems running a certain game on your system the best 'tip' is DON'T PLAY THAT GAME! Forget it, they're only for a bit a fun anyway…! Try some serious software like WILLOWPOND, WIZ or CAKEWALK…

ZIP 'n' Go..

Internal ATA & Parallel Port Drives

In your PC or back pocket,
ZIPs by Panasonic make it easy..

- 💾 Back-Up your HDD

- 💾 A disk for games

- 💾 Take your files on the road with you

- 💾 Download your internet files to it

- 💾 Store & play videos and music from it

zip™ drive 100

Specifications

Performance

Average Seek Time	29 milliseconds
Data transfer rate	1.4 MB/Second
Typical throughput	Up to 60MB/Min. Parallel Port Model up to 25MB/Min.
Rotational speed	2945 RPM
Average start/stop time	3 seconds
Buffer Size	32K

Reliability & Service

MTBF	100,000 hours
Service life	5 years
Disk Drop tolerance	8feet/1000g's
Estimated Disk shelf life	10 years
Drive Warranty	1 year
Media Warranty	Limited Lifetime

General

Disk storage capacity	Uses 100MB ZIP Disks
Operating System compatibility	Windows 95, Windows 3.1, DOS, Mac OS, OS/2
Interface	ATA-2 or parallel port models available
Connections	Internal - 40-pin ATA External - Two 25-pin (allows for pass-through)
Power requirements	5V, 1 amp continuos 1.7 amp peak.
Acoustic noise	Less than 32 dBA
Read/Write protection	Via software (optional password protection)
Packing information	Internal 20pc / carton External 4pc / carton
Including	100MB ZIP Tools Disk

[COMPARISON TABLE]

Specification	ZIP 100 ATA Internal	LS-120 HD FDD
Capacity	100 MB	120 MB
Data Transfer Rate	1.4 MB Second	0.67 MB Second
Average Seek Time	29 ms	70 ms
Rotational Speed	2945 rpm	720 rpm

OEM? ~ Do you want your own brand ZIP Drive ?
Special OEM packages available start from as little as a 1000 pc order - Call your Sales Rep' for more information now..

Ordering Information
Model # PT-811E Internal ATA-2 interface
Model # PT-851S/PT-851P External SCSI / Parallel