

## 2. Prinzipieller Aufbau einer WAVE-Datei

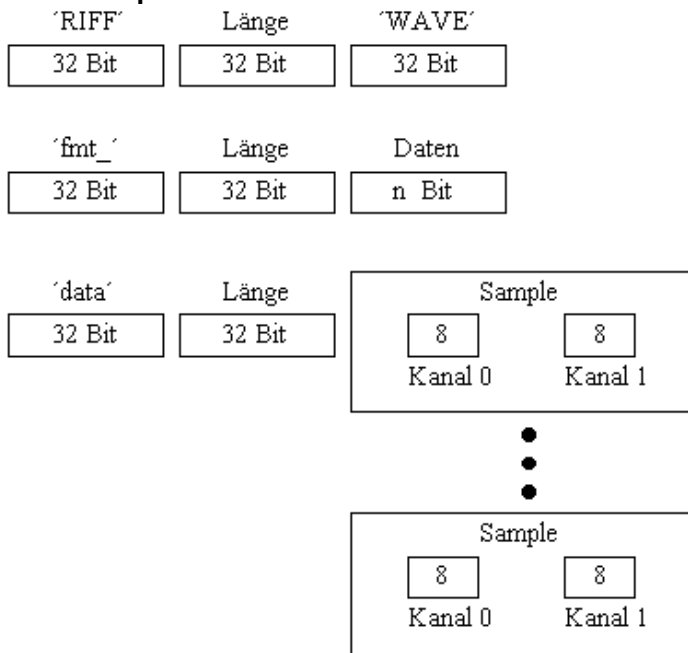


Abb.2

Die Abb.2 zeigt das Schema einer einfachen 8-Bit Stereo-Datei. In den ersten 32 Bit steht das Wort 'RIFF', danach kommt eine 32 Bit Längenangabe. Nach dieser folgt das Wort 'WAVE', usw...

Wie man sieht besteht ein gewaltiger Unterschied zwischen diesen Formaten. Als nächstes sollen die wesentlichsten Unterschiede als Vor- und Nachteile des WAVE-Formates aufgezählt werden.

## 3. Vorteile des Formates WAVE

Wave Dateien können auf allen Soundkarten ausgegeben werden, sofern diese von Windows unterstützt werden.

...

Viele Editor arbeiten mit dem VOC-Format, da damit bei der Aufnahme von externen Tonquellen (Line-In, Microphon) keinerlei Probleme zu erwarten sind und keine Grenzen innerhalb der Hardwaremöglichkeiten gesetzt sind. Will man nun eine VOC-Datei in eine Wave-Datei umwandeln so benutzt man dafür ein Konvertierungsprogramm. Die Nachteile des Wave Formates spürt man am Stärksten bei der Umwandlung einer VOC-Datei in eine WAVE-Datei.

## 4. Nachteile des Formates WAVE

Das Wave-Format kennt keine Silence-Blöcke, somit kann in eine WAVE-Datei keine Stille eingefügt werden, wenn dies gewünscht sein sollte. Bei der Umwandlung von VOC in WAVE werden die Silence-Blöcke der VOC-Datei daher vernachlässigt.

Das Wave-Format kann Sampleraten nur mit 11.025, 22.05 oder 44.1 kHz ausgeben. Somit können VOC-Dateien die mit einer anderen Samplerate abgespeichert wurden nicht korrekt umgewandelt werden. Auch fällt damit ein toller Effekt in der Tonausgabe aus, der im VOC-Format voll ausgenutzt werden kann.

Das Wave-Format kennt obendrein die Schleifenblöcke des VOC-Formates nicht. Diese Eigenschaft macht sich in der Speicherbelegung einer WAVE-Datei bemerkbar, wenn zum Beispiel eine Schleife mit 5 Wiederholungen aus einer VOC-Datei in eine WAVE-Datei umgewandelt wird, da das WAVE-Format diesen Ton-Daten-Block 5 mal in die WAVE-Datei einsetzt.

Auch kann eine WAVE-Datei nur eine Samplerate in einem Musikstück verarbeiten und nicht mehrere wie das bei einer VOC-Datei möglich ist.

Außerdem kann eine Wave Datei die Tondaten nicht packen, was nicht unbedingt zur Verkleinerung der WAVE-Datei beiträgt.

Es gibt sicherlich noch mehrere Vor- bzw. Nachteile des WAVE- oder des VOC-Formates die in diesem Anhang nicht angeführt sind, da sie entweder unerheblich oder mir nicht bekannt sind. □

## Support, Santa Cruz Style

or

### Where Do These People Come From?

by Jeff Liebermann (jeffl@comix.santa-cruz.ca.us) 07/09/94 (All these really happened to me since 1983.)

1. "My hard disk won't boot". I suggest they take the floppy out of drive A.: Later when I arrive, they have successfully removed the floppy drive from the machine (with the floppy disk still inside).
2. "My dog goes nuts when I run Windows. No problem with any DOS programs". Her monitor had a cracked flyback transformer. When the multisync monitor switched scan rates upon entering Windows, the high frequency audio produced by the broken flyback was heard by the dog.
3. "Michaelangelo virus ate my hard disk, but I have a tape backup. Can you help me restore the system". No problem. When I arrive, I find the data on the tape was 18 months old and that she had never run a backup. "I thought you just shoved in the tape and it sucked up the data".
4. "How do I get on the national data information super highway?". I ask if he has accounts on any bbs's. He has Netcom, Compuserve, and others. I tell him he's already on the highway. "Is that all there is?" I hangup.
5. "What's the fastest way to move 500MBytes of data daily from Santa Cruz to Los Angeles?". Answer: FedEx.
6. „How many RJ45 connector does it take to build 8ea 10baseT cables?“ Answer: 45. I put the first 16 connectors on with one end backward. I then chopped off the good ends. Chopping off the other 8 connectors and effectively starting over consumed another 16 connectors. The 2nd try resulted in one end being mirror-imaged. Chopping of 8 more connectors I finally got them wired correctly. Then I tested them for continuity and found 5 bad crimps. Total=45.
7. "What kind of hard disk do you have?" Well... It's black with a little red light ... (groan).
8. Most common support call. "I lost my CMOS setup. How many heads, cylinders, and sectors does a \_\_\_\_\_ drive have?"
9. "I move the mouse in any direction and the cursor only moves an inch or so on the screen and stops". Take the foam shipping ring out from around the mouse ball.
10. "My systems on fire. What do I do?". Ummmmm. Turn it off? "(Click)"
11. Most hated support call: "I'm not sure if we need a computer system. Can you give me the relative advantages of Unix, DOS, Windows, Novell, MacIntosh, Sun, etc...?"
12. Favorite software support call: "I just installed Word 6.0 for Windows. It's really big and slow. How much will it cost to upgrade my machine?"
13. "My floppy drive won't read disks". I suggest they clean out the dust from the drive. "I can't". Huh? "The dust won't move". I find that they were using spray glue near the machine and that all the dust was glued in place.
14. How to impress a new customer: I walk into the computer room and knock the fire extinguisher off the wall which immediately sprays everything with dust.

15. *"My printer stopped working"*. Turn it upside down and shake out the staples and paper clips. Works every time.
16. *"Can you teach me how to use a computer?"*. I answer: No. I just fix the machines, I don't use them.
17. The company motto: *"If this stuff worked, you wouldn't need me"*.
18. From one of my smarter clients: *"Why is something broken every time you're here?"*
19. *"I'm trying to install a 2nd IDE drive. Support told me to take out ALL the jumpers"*. How many did you take out? "12". (What they meant were the two easily accessible jumpers).
20. I call a manufacturer to order a manual on some junk I picked up surplus. The receptionist asks my name and company. She notes that I'm not in their database and could she have my address and phone numbers. No problem. I'm then transferred to the customer service department which notes that I'm not in the database and asks for the same information. The customer service person transfers me to the parts department which notes that I'm not in the database etc... Since the manual will take a few days to arrive, I ask for tech support who notes that I'm not in the database etc... The manual arrived promptly followed by 4 identical envelopes of promotional literature with exactly the same name and address.
21. Question LEAST likely to be answered correctly by support: "What is the current version of your software/hardware/firmware?"
22. Pacific Telephone Support Dept (Dial 611 for repair service), now asks you to punch in your phone number, and then warns you that you will be asked to verbally recite the same number when the service operator answers. I wonder what happens if they're different?
23. Email from a friend: *"CanYouFixTheSpaceBarOnMyKeyboard?"*
24. Fax back information service for additional information from one vendor requesting just one item returns a copy of their catalog page plus 10 pages of promotional garbage.
25. Email autoreply from support@\_\_\_\_\_.com Thank you for your support request. (drivel deleted) Please refer to support request number: Error: cannot create /u/something/filename (4 lines of garbage deleted) in future correspondence. Your request will be processed in the order received. (more garbage with Out of space on hd(1,41) mixed in.)
26. Conversation with support at a certain controller manufacturer. *"I can't answer that, please call your dealer"*. *"I am the dealer."* *"Then call your distributor"* *"He said for me to call you"* *"Then have the customer call us"* *"AAAAAGH!"* <click>
27. Modems and payphones don't mix. I hotwired my laptop into the mouthpiece of a payphone and proceeded to do system maintenance on a customer's machine. The sheriff arrived shortly and proceeded to interrogate me. Someone called complaining that I was using a computer to steal money from the payphone.
28. Having my system page me when it does an unscheduled reboot was a good idea. Having all my customers machines do the same was a mess after a power failure and 100+ pages.
29. *"My hard disk has a virus!"*. How can you tell, I ask? *"When I type DIR, it says VIRUS <DIR> and some date stuff"*. (Hint: Never name the directory for virus scanning software VIRUS).
30. Some monitor manufacturers suggest using alcohol to clean the screen. They forget to mention that the monitor should be off. (Boom).
31. I told a customer to take his machine to a gas station and have them blow the dust out. The gas station hands him a 150psi air nozzle that belches rusty water and oil. I got to clean up the mess for free. He also mangled the floppy heads with the high pressure.
32. Oxymoron candidate: Disk Protector. That's the cardboard disk they shove in the floppy drive for shipping. More drives have been mangled by shoving in the wrong shape, backwards, or bent than have ever been protected by them. Use a floppy disk instead.
33. What's the difference between a Van DeGraf static generator and a belt driven vacuum cleaner? Answer: Not much. Don't use a vacuum to clean your computer.
34. After the cleaning service crashed the computer for the 4th time by plugging the floor sweeper into the UPS, I decided to take action. I suggested they install "child proof" plastic plugs in any outlets deemed worthy of protection. The order went through the chain of confusion, and I was soon blessed with 1000 child proof plugs hot stamped with "Protected". I gave instructions to install about 10 of them on the protected outlets. However, the maintenance person assigned to the task knew nothing and proceeded to plaster every outlet in the building with the plugs. Mutiny was averted by spending all night removing the monsters. Three years later, they are still appearing.
35. Hint: Do not allow long hair black cats to sleep atop laser printers and tape drives. The black hair is almost invisible in black patterns, gears, and rollers.
36. Forensic filth analysis is a new part of computer repair. I now carry a microscope and some chemicals which are used to determine the exact nature of the filth I remove from keyboards, mice, computers, light pens. While nobody pays me to do this, it definitely adds to the entertainment value.
37. Why do customers think that I maintain a document and device driver library for every conceivable board ever made?
38. From a hard disk drive manufacturer: *"The drive stopped working. I popped the little plug and noticed it was awful dry inside. I added some oil but it didn't help"*.
39. Which arrow key? There are 17 arrows on the keyboard.
40. Favorite error message: *"Out of paper on drive D:"* This was produced by a timeout error on a slow WORM drive and a defective AT/IO card.
41. At one time, I was into antique furniture. When I purchased my first computer (IBM 4.77 PC), I decided that it deserved a suitable antique table. I ask the local antique dealer: *"Do you have an antique computer desk?"*. He looks at me with a strange look and says: *"They didn't have computers when this stuff was made"*.
42. When 3.5" floppies first appeared, some users were confused with the operation of the write protect window. One user wanted to be doubly sure that the disk would be safe from his mistakes. He correctly opened the window and just to be sure, covered it with one of the magic write protect tabs from a 5.25" floppy.
43. Favorite Windoze game: *"Guess what this icon does?"*
44. A video store installed the computer on top of the cash drawer. Every time the cash drawer would open, the hard disk would get a good bouncing. I decided that this was technically disgusting, and moved the machine. The next morning, the drive wouldn't spin up (stiction). Solution: Put it back on top of the cash drawer and let it bounce.
45. The curse of the mad labeler. Some of the clone cards I see have stick on METALIZED labels that are quite good at shorting traces. I've fixed a few by just removing the stick-on short. A variation on this effect is the tendency for some distributors to put stick-on labels on TOP of their 486 chips. Then they smear on some silicon grease and bury the mess under a heat sink and fan. The air gap produced between the chip and heat sink severely degrades its cooling value. □