

## *The System Analyst for Windows ("SAW") ReadMe File*

This file provides some information about SAW. Please also read the *Licence* file which tells you the legal stuff, your rights and warranty. Don't forget the **Help File** !

This file is in *Windows Write* format. If you do not have Write, most word processors can convert it in their own format. Should they fail, import it as Windows text.

### Using Windows Write to View This Document

If you enlarge the Write Window to its maximum size, this document will be easier to read. To do so, click the *Maximise* button in the upper-right corner of the window. Or open the *Control* menu in the upper-left corner of the Write window (press ALT+SPACE), and then choose the *Maximise* command.

To move through the document, press PAGE UP or PAGE DOWN or click the arrows at the top and bottom of the scroll bar along the right side of the Write window.

To print the document, choose the **Print** command from the *File* menu.

For **Help** on using Write, press **F1**.

To read other on-line documents, choose the **Open** command from the *File* menu.

**Note:** This is in case you don't know/you've forgot. I'm not trying to treat you like a kid, even if we are all still kids, aren't we ? (*playing with computers* :)

### Description

SAW is a Windows diagnostic utility. It provides the same information as some commercial diagnostic software, usually included with a tools/utilities package. However, this is *free*.

SAW is Windows 3.X compatible. However, it will run only in **Standard** or **Enhanced Mode**.

SAW will provide information about your system's Processor, Memory, BIOS, Disks, Drives, Mouse, Joystick, Windows, DOS, DPMI, etc. You can create a report to be printed or saved to a text file which can be loaded into any word processor.

### Dedication

SAW is dedicated to all the Freeware/Public Domain software writers world-wide. If you are one of them, please receive my personal thanks even if I might not have seen your program. I'm sure it's a good one. Without you the world would have been a *colder* place.

SAW is also dedicated to all those kind souls on the UseNet that help others for no charge, even if they could just as well do nothing about it. Hope you all will continue to do so...

*'Hope you will enjoy SAW...*

## Install Addendum

It's a bit late now (you've probably installed SAW already), but it is recommended that you install a newer version of SAW over an older one. You can keep two versions, but SAW might become confused (it shouldn't, but...) and the UnInstall might delete both versions...

## The Install Disk

The installation disk should contain the following files:

<b>INSTALL.EXE</b>	SAW Installation Program
<b>SAW.EX\$</b>	SAW Main Program File
<b>SAW.HL\$</b>	SAW On Line Help File
<b>CTL3D.DLL</b>	Microsoft's Dialog Extensions File
<b>README.WRS</b>	Information File (the one you are reading)
<b>LICENCE.WRS</b>	Your Licence Details File
<b>FILE_ID.DIZ</b>	FTP/BBS Information File.

If any of the above files are missing, try to download the SAW package from another FTP/BBS site. If some are corrupted - there must have been a error during transmission (check you downloaded in **binary** mode) - repeat the operation. Check that the *Integrity Check* (SAW's File menu) test is passed.

Some of these files are compressed, so you should let the installation program decompress/copy them to the Hard Disk. The Install program will also create a group in *Program Manager* (or compatible shell) and the SAW program icons.

You can do an program *UnInstall* which will delete all files installed and remove all directories (if any) created and the groups/icons installed in Program Manager (the program's shell). So don't be afraid it'll mess up your system... But you will need the original install disk (with Install.exe) to do it. See the Help File for more details.

**Note:** If one of the above named files does not exist the installation may fail. For example, if SAW.EX\$ or SAW.HL\$ are missing, the installation **will** fail. If CTL3D.DLL is not present somewhere you **cannot** even start the install program !

Also, you should have the following files in your System sub-directory in the directory where you have Windows installed:

<b>COMMDLG.DLL</b>	- Used by SAW, so vital.
<b>MMSYSTEM.DLL</b>	- Used by SAW, so vital.
<b>TOOLHELP.DLL</b>	- Used by SAW, so vital.
<b>VER.DLL</b>	- Used by SAW & Install, so vital.
<b>LZEXPAND.DLL</b>	- Used by SAW & Install, so vital.

All these files come with Windows 3.1 and higher, so there's no reason why you should not have them in your *Windows\System* directory. Some also come with many programming packages. They are also available for those who still use Windows 3.0.

If you run an *Emulation Windows*, you should have them as well - if the package emulates Windows

3.1 or higher. If it doesn't, then you should either get them and see if they work, or contact the manufacturer for further assistance.

The Install program will tell you if it does not find them and where to put them. If they are not there (they are *always* copied there by the Window's Install program), expand them from your master Windows disks.

See *Chapter 4 : Troubleshooting* in *Getting Started with Microsoft Windows* manual. You also need to find out on which disks they are placed. Check the *Index*.

### **For Windows 3.1:**

<b>File Name</b>	<b>1.44 Mb</b>	<b>1.2 Mb</b>	<b>720 Kb</b>	<b>360 Kb</b>
COMMDLG.DL\$	Disk 4	Disk 4	Disk A	Disk 4
VER.DL\$	Disk 2	Disk 1	Disk 1	Disk 2
LZEXPAND.DL\$	Disk 2	Disk 1	Disk 1	Disk 2
MMSYSTEM.DL\$	Disk 4	Disk 5	Disk A	Disk 6
TOOLHELP.DL\$	Disk 5	Disk 5	Disk 8	Disk 6
EXPAND.EXE	Disk 3	Disk 3	Disk 5	Disk 2

### **CD-ROM Installations (for distributors)**

If all the SAW program files are expanded, SAW will work straight out of a CD-ROM or a write-protected diskette. It creates no temporary files, but, of course, reports cannot be saved on a CD-ROM !

You can include the SAW.INI as well - SAW will **not** write to it unless told to do so; even in this situation it will not crash, but ignore the request.

You should keep the compressed files too (as mentioned above) and use *my Install* program to install SAW to the user's machine (after evaluation) as mine provides an *easy* uninstall procedure as well. However, (see the *Licence* file) you can use your own Install program if it does the same thing.



**WARNING !!!**



**I STRONGLY RECOMMEND THAT YOU SAVE/CLOSE EVERYTHING YOU ARE WORKING AT (open documents, files) BEFORE RUNNING SAW FOR THE FIRST TIME. SAW WAS TESTED FOR INCOMPATIBILITIES BUT YOU JUST NEVER KNOW !**

I'm not (really) trying to make an excuse but even commercial programs (may) lock your machine so you should always take precautions.

If you find no problems then you can cool down. But **do** save regularly.

**Note:** Be wary of running SAW on non-DOS configurations. DOS/Windows application may run on your platform, but SAW may not, as it delves inside it - it doesn't just beep the speaker !

## Acknowledgements

I acknowledge the help from the sources listed below. Thanks to all of you who helped me in the past and (I hope) in the future after I release this program...:)

**UseNet** - Groups *comp.lang.pascal*, *comp.lang.c++* and *comp.os.ms-windows.programmer.misc* (+ all other *comp.os.ms-windows.programmer.\_\_\_\_* ones) for tips & techniques discussed through I have not received any replies to some complicated questions... :( Also *alt.games.action* and *rec.games.doom* for keeping me "(in)sane" :)...

A big **THANKS** to ALL who replied to my questions.

**PC PLUS Magazine (UK)** - through the *HELP Screen* and some other tips & techniques. Keep up the good work. Will you include SAW on your *SuperDisk* ?

**BORLAND's BP/TP/TPW/BPW Examples** - (ftp.borland.com - Borland International Inc. USA) I was really surprised, but I think they are quite good. SAW is based on some of them.

**ftp.microsoft.com** - (Microsoft Corp. USA) I did get some very, very interesting stuff from there, but everything is in C/C++ - bloody hell ! It gives me the creeps...

**MS-Windows-Journal** - (Microsoft Corp. USA) excellent - but C++ as well... (the source code)

**ftp.intel.com** - (Intel Corp. USA) great site where you can find quite a few white papers. Not bad to get an answer from Intel when I could not find a document (!)... Pity they did not offer me a Pentium™, but can you blame them ?

**ami.megatrends.com** - (American Megatrends Inc. USA) Great for documents, specs., vital if you need to tweak your motherboard/BIOS. But why in WordPerfect ? (the files)

**src.doc.ic.ac.uk** - (Imperial College, London, UK) For their great mirror FTP site to which I still have access even through I may have downloaded 100's of Mb :) Hell of a site. Hope SAW will appear there, too. (It has!)

**The PD Pascal Source Code Writers** - All kinds of programs, the small ones really were a gold mine to me. Keep writing guys (and girls)... Unfortunately, most routines are for Real Mode DOS, which do not work in Protected Mode with Virtualised hardware, so most were re-written from scratch.

**CITY University, London, UK** - For allowing me to test SAW on their computers and for all the programs that I used to make SAW possible. I couldn't have done it without you...

**David Vinograd** - Resource warning selection request and various advice. Also, helped me with various programming utilities & SDK. He's the *Computing Systems Director* at our University !

**My Dear Friend (Azman Sahari)** - For testing the beta versions and for nagging me all the time...

**Joe Strzemp** - Browse buttons request & various bugs. Better information files.

**My "Beta" Testers** - Last, but not least. They suggested all kinds of things that I did not think anyone would need and spotted errors I did not see. Well, **thanks**, and keep sending those reports

(what reports !?!:). If you want to contribute with something, as I said, send it in. I don't flame anybody... *Thanks for your support !*

The ones I forgot - Well, remind me...

### **New in this version**

Well, I don't want to spoil your fun... Check out and see. It's not that much, but if you look carefully, you may just spot some new features...

Why are the *Licence & ReadMe* files in Write format ? That's because, unfortunately, this file has grown too big for *Notepad* to handle (or too hot :)...

### **Known (already!) BUGS or Incompatibilities**

#### **1. Detection Bugs - (: they are NOT bugs ! :)**

**486** - SAW does not differentiate between 486DX, 486DX2, 486DX4 *clones* (i.e. Non-Intel), Blue Lightning DX3, 486DLC - all will be classified as 486DX. Similarly for 486SX, 486SL, 486SLC, etc. I do not use the clock frequency to do a determination as some may overdrive it, *Turbo* may be off, etc. The clock frequency is all that matters usually, not that you have a 486DX-50 or 486DX2-50. (I said *usually* :) All new Intel CPUs are detected !

**Pentium™** - SAW does detect the Pentium™ even though Windows 3.XX does not...

**P6** - SAW does detect the P6 (686) (!!?) as well, even the clock speed should be accurate if its spec. does not change in the meantime !!! Send me some info if you've got one ! Better still, send me the processor itself :) :)

**Note:** Disable the "*File-Options-General Options-CpuID Check*" if you run SAW on a non-Intel compatible (MIPS, Alpha, Macintosh, etc.) machine, otherwise it may crash if the emulator is not 100% compatible...

**CPU Clock** - This is usually accurate to  $\pm 4\%$  in Standard Mode, but very accurate in Enhanced Mode  $\pm 2\%$ . Note that I round up the value, so a 66.667MHz becomes a 67MHz ! If *Turbo* is off or the Internal and/or External Caches are disabled expect a silly value - put your system right !

**Note:** Do not play music (MIDI, etc.) in the background while SAW measures the clock speed ! (System, Computer Info) The value will be useless !

**Pentium™ CPU Clock** - Unconfirmed erroneous clock detection; theoretically should work although we know what this means...

**Pentium™ FPU Bug** - If yours has the model/stepping as (1,5) then you *might* have it. Check with another program. For the ones that still don't know, this bug may result in loss of precision when using floating point division on Pentiums made in '94. You can get a replacement through, so check with Intel for details. (SAW uses floating point division too :)

**Buses** - Only the ISA, MCA, PCI and EISA buses are detected by this version of SAW. The VESA bus is transparent, so it may not be detected in all cases.

**BIOS Version** - If the version is "Unknown", the BIOS might have no version information like my AMI BIOS - no other detection programs managed to find it either ! On well behaved BIOSes, SAW *will* find it.

**AMI BIOS Extended Info** - This info might be different from the general one. This is normal - many manufacturers don't comply. This is supposed to be only for comparison.

**AMI WinBIOS (12/15/93 mm/dd/yy or later)** - As AMI decided to shift the goal posts when it introduced the WinBIOS, SAW might not display the correct information if it thinks you have a Hi-Flex (the older BIOS type). If you find any discrepancies - send me info. Ver 1.02+ should fix this.

**APM Info** - As I could not find a laptop which supports APM (honest !) the routines are untested. Please send me some info on this...

**Video Card Name** - As there is no standard place that I know of for the name, SAW might display some rubbish or the manufacturer's name. Some cards (like Tseng) use a number (e.g. 2848) as model not a name !

**Video Card (OEM) Manufacturer** - These might be vice-versa depending on the card.

**Max. Resolution** - If you have a fancy card this might be incorrect especially if it is a multiprocessor design. Some custom cards for portables might be over-rated as well.

**Logical Drives** - Virtual/Memory Drives will be detected as Fixed if they are not standard. (RAMDrive and VDisk are supported).

**Floptical Disks/Other Fancy Ones** - SAW will detect them as whatever Windows likes to think they are. SAW is not doing any checking itself yet.

**SCSI Hard Disks** - The ones that do not emulate Int 13h will not be detected.

**Windows Manufacturer** - On emulators (like WABI, SoftPC) Microsoft might appear to be the manufacturer too... (I wonder why :)

**Windows Version** - As I said, there are a few exceptions too:

- Windows for Workgroups 3.11 reports Windows 3.1 if you are not running the Microsoft Windows Network and Windows for Workgroups 3.1 if you are. Build version should be 3.11 through...
- Windows '95 (Chicago, Win 4.0) reports Windows 3.95

**DOS Version** - There are a lot of problems with this, as there were quite a lot of DOS versions around here - fortunately not too many at present. The version shown by SAW may differ from the one reported by **ver** and the one written on the box. See below:

- SAW does detect OS/2 and OS/2 Warp but IBM might be shifting the goal posts...
- Windows NT might report that it emulates MS-DOS 5.0
- DOS 4.01 and 4.02 (bug fixes) report DOS 4.0. Upgrade to DOS 5.0 or 6.XX
- IBM PC-DOS 6.01 reports PC-DOS 6.0 which never existed !
- MS-DOS 6.21 reports 6.20 for compatibility - nice one Microsoft !
- Windows '95 (Chicago, Win 4.0) reports MS-DOS 7.0
- DR-DOS 5.0 and 6.0 report DOS 3.31

- Novell DOS 7 reports DOS 6.0 for compatibility
- Some custom DOS versions may be identified as PC-DOS
- Type **ver /r** for more info.

**DOS Manufacturer** - See above. Similar comments apply...

**COM Ports Address** - If it is 0000h then the port could be used by the mouse (most frequently - check mouse details) or some other peripheral. Remember, this is Window's view - that's why it's like that !

**UART Chip** - The 16550AF+ UART chips might only be detected as 16550AF. I don't have those either !

**Total Base DOS Memory** - This is the amount of memory available to DOS/Windows. If you put your hard disk information in the last 1KB then you have only **639Kb**. Some cache controllers use 4Kb of memory for shadowing (they say only 1, but...) so you're left with **636Kb**.

**Mouse Buttons** - Even if your mouse has 3 buttons, in Microsoft Mode only 2 can be used (nowadays), so 2 will be displayed.

**Joystick Installed** - If it says "*Installed - not standard*" it is usually because you have a sound card as well as a game card (or Multi I/O card) and you may have more than 2 game ports ! The BIOS has not detected a joystick although other methods have...

**IRQs Address/Owner Real Mode** - The REAL Mode addresses/owners as shown by SAW, may differ from the ones shown by a DOS snooper in a DOS Box ! This is because when you invoke COMMAND.COM to go to a DOS Shell, COMMAND will hook some IRQs itself; also TSRs present only in a DOS virtual machine hook other IRQs too ! Remember, this is a Window's application's view of Real Mode !

**IRQs Address/Owner Protected Mode** - Windows hooks most of them in this mode. Some are taken by Ring 0 handlers which cannot be queried - so no info. Others are just reflected to Virtual mode. I'm waiting for a VxD to get far more detailed info.

**Boot/Partition Sectors** - If you use a fancy Device Driver or OS/2, NT, the info given might be rubbish. But then again, you do have the system tools to obtain it...

**Disk Cache Info** - SAW detects only the following Software caches: Microsoft SmartDrive, Norton N-Cache, HyperDisk, Super PK-Kwik (QEMM Q-Cache, PC Tools Cache v6). Not all give the same info so some fields will be N/A. Only Promise Technologies cache controllers are detected.

**Disk Compressors** - SAW detects only DoubleSpace/DriveSpace and Stacker. Do note that DriveSpace will be detected as DoubleSpace - in fact it is not very different from it.

**Save Report** - If you include everything (configuration files, large comments and most of the tests) the size of the report file might exceed 64Kb and you will not be able to see it in Notepad... Use DOS EDIT. Do note that in a WYSIWYG word-processor (even Write) you must use a fixed spaced font to keep the original alignment (like System, Courier, MS-Line Draw). This is not a bug.

**Sound Card Info** - SAW might not detect the Irq/Address/DMA channel even if the Windows drivers for the card are installed. This is in fact the driver's fault (serious) which does not provide the information as it should...

## 2. Interface Bugs

**Large Fonts Displays** - I have tried like **hell** to make it look OK with many types of fonts and tried it on a few machines all with different video cards. However, in some circumstances SAW might not display correctly. Sorry about that and drop me a line.

**Painting Problems** - I know, I know. Don't bother, I know them all, but I couldn't figure out yet a way to eliminate them... Maybe in the next version...

**"N/A" on hint bar** - You made the application's window too small and the info text is too long to be displayed. Re-size or maximise the window.

**SAW on top** - By default, SAW pops over the active application when an event occurs. To eliminate this, set "*File-Options-Alarm Options-Video Alarm*" to "Normal" rather than "On Top". You can turn the sound off too in the same dialog box - "Audio Alarm" to "No Beep".

## 3. Program Bugs

**Video Detection** - If you have a *VESA TSR BIOS* extension, running this test may lock your mouse (in a cage :) and mess up the display. This can be solved by pressing **CTRL-ALT-DEL** (*only in Enhanced Mode and only once !*) and then by pressing ESC (don't close down anything) - the mouse should be OK now... Disable "*File-Options-General Options-VESA Detect*" to skip this test.

**Windows 3.0, Windows NT, OS/2 & Emulators** - If you encounter any problems using SAW under these platforms drop me a line so I fix it in the next release. For Windows NT/Win32s a *32bit version* of SAW may appear in future - you are advised to use it instead of the 16bit *normal* SAW.

**Install/UnInstall** - The icons can only be deleted if you run Windows 3.1+ or a shell which supports the new commands. If the icons are not deleted correctly, this may be due to a shell bug. Well, Program Manager doesn't do better - so there nothing much I can do... Its really not my fault :)...

## 4. Limitations

**Tasks Info** - SAW has a limitation of 40 modules, therefore only the first 40 will be shown. In the unlikely event that you want to check on a program which uses more than this, contact me...

**Tasks Info Save/Print** - This is not supported by this version. It is because the particular interface is not finished yet. As no-one asked for it yet, I did not try to finish it. Should you require it tell me and it will be included in the next release version...

**WPS.386** - This VxD is not included in the SAW package. Yes, it is not a bug or error. The problem is that I do not have the Device Driver Development Kit (DDK) to create a VxD (I cannot buy it in 1000 years :), therefore, it is very difficult to get VxD info from a normal application. The WPS.386 belongs to a commercial package (*MS-Developer's Network CD - MSDN Level 2*). As it is commercial software, you must have it because I cannot get it for you (I don't have it either). I am trying to solve this limitation fast, meanwhile, this version of SAW will remain this way... (code works OK through - tested with no problems)



## **5. Incompatibilities**

**Debug Version of Windows** - will crash if you try "*Hardware/Software Interrupts Info*" in Enhanced Mode and will give you a headache in Standard Mode. This is (as you will see) because I'm trying to get info on system selectors which is a system violation. See AUX debug output...

**System Resources Monitors** - which *keep an eye* on your system resources in real time may conflict with SAW when it tries to get some information. You should let SAW monitor your system or the other program but not both. The problem could not be reproduced.

**Background processing** - may influence SAW negatively while it is gathering data (creating a report, displaying a dialog). Timing tests could become useless in this case...

**Note:** Many bugs from previous versions of SAW & Install are fixed in this version. They are not listed as there is no point. If you still get them - drop me a line...

Sorry for all these bugs...

## **Technical Support**

Well, this is not exactly what is available usually - the program is free - but should you have problems with SAW and the bug/incompatibility is not listed, then you can contact me via E-Mail. I cannot offer you help and/or advice in other subjects through.

If the problem is known and fixed in the new version, then I will inform you about it. I will not be able to get you a beta version of SAW - you will have to wait for the release version...

## **Where to contact Me...**

I have tried to put as much information as I could in this file and the help file. I cannot (I'm not even trying to) explain many terms or results - I do presume you are familiar with what I'm talking about (Drivers, Utilities, etc.). Get some books and read some magazines if you want to know more...

If you **do** find bugs or incompatibilities (read the *Bugs* paragraph to see if it's a documented one) I would be very, very, very happy if you could E-Mail me with a brief description **and** SAW's report (complete if you can). If you have another diagnostic program (MSD, SI) you could add it's side of story (a saved report) so I know what it should be...

Please do note that I may not be able to correct it - I may not know how/what to do !

You can contact me at the *E-Mail* address below:

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**Internet (October through July ONLY): ce146@city.ac.uk**  
(: *that's CITY University, London, UK by the way... :*)

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**Note:** The subject of the message **should** begin with the word "*SAW*" followed by the version, e.g. "*SAW 1.02 : Printing Errors*"; otherwise, I may not know what are you talking about !

Sorry, if you need to contact me during other periods I may be very slow to *answer* as I am away (on holiday - lucky me)... I will still get your message... Also, I do not have Internet access during the weekends...

Don't forget to say if I should reply or not ! If yes, then include the your *correct E-Mail address* to which I should reply to (if different from that used to send the message). And **don't** flame me if SAW displays garbage instead of what it should...

By the way, I'm only a student ('Did you know that ?' 'Gee, no, I thought you were the Head of Department !' :) so I have many things to do, therefore, if I would try to release SAW after everything works OK - it would take **ages**. And I don't study computing either !

**\*\*\* That's all you have to read, but if you can be bothered... \*\*\***

### **The History of SAW**

The first diagnostic program written by me was called "*The System Analyst*" (SA) which was a DOS program written in Turbo Pascal 6.0 using Turbo Vision. This program was never released as I did *not* finish it (too lazy). It was, however the base for the other programs I wrote since.

When I finally got my hands on a Windows compiler I changed from Turbo Vision to Object Windows and this was SAW **1.00**. As Windows is a *bit* different from DOS, the interface had to be updated, and this has become SAW **1.01**. This was the first released version, so, expect the occasional *bug*. Compiled with TPW 1.0.

Version **1.02** has solved some problems and added some extra functionality (Tasks info, VxD info, 486 extra info). Minor rewrite, Major Bug Fix - too many to be listed :) . Compiled with BPW 7.0. :)

Version **1.03** - has added even more improvements and is far more stable. Hey, not yet ! (remember, this is 1.02 - did I trick you ? :). As soon as it is finished...

*32SAW* Version *1.XX* - 32bit version of SAW, as soon as the porting from TPW to C++ is finished. Should take some time through... And the exams are coming... Expect it after Windows '95 is finally released :)...

### **The technical stuff**

SAW was designed and tested on original Windows 3.1/3.11. Slight anomalies might appear under other Windows versions. I think the physical disk information might not work under Windows NT as the kernel won't allow it, but the rest should be fine. Unfortunately, as I do not have access to a machine running it, I do not know ! Also, I have no idea about OS/2 (Warped or not), WABI, Wine, SoftPC or the forthcoming Windows 4.0 (Chicago, Windows '95).

It is a **16bit protected mode** application written in **Borland Pascal for Windows 7.0** using **Object Windows Libraries**. SAW does the detection/calculation when you open the required window, not at start-up - so do not expect *exploding* windows...

SAW uses the SAW.INI file in its own directory if found - otherwise tries to find it in \Windows

directory. In this way you can have it customised on floppy when checking computers - you can save the report on floppy too.

SAW **does** use a few undocumented API calls, but they work OK in Win 3.XX. If they are not supported in other Windows, SAW uses a *workaround*, so it should not crash...

Lastly, on a 486DX-33 a full report (60Kb) was generated in 7.3 seconds (saved to hard disk). Take into account the delay when checking the empty (2) floppy disk drives ! Now, how's that for speed ? Compare this with real mode DOS programs that should run a lot faster !

### **Source code for SAW**

I will **not** release SAW's source code as I don't think it does justice to OOP(S) (Object Oriented Programming), although it uses OWL (Object Windows Library), so I don't want to give others nasty ideas. Some protected mode hacks may not always work, and I don't want any flames...

Yes, even if you were willing to buy the source code (by absurd) I cannot sell it to you.

Also, I would not like to see a shareware SAW look-alike based on my code. SAW is not as important as *Linux* for example to implement the *copyleft* procedure for example.

Well, if you need any help ask on UseNet, get those Public Domain programs with source code, get all the examples you can find and software you can get and you're bound to get through. Do not ask me through: sorry, I am unable to help you on a direct basis. Hope you understand. I may be able to give you some pointers only. *Good luck with the programming and keep up the good work... (whoever you are)*

### **Wish List**

I need a VxD like the WPS.386 (from MS-Dev Net CD) to get info about the VxDs installed in Windows. However, as I do not have MSDN or the DDK, I'm stuck. Should anyone be able to help me with this (for free - how could I pay you !?!, but you retain copyright/credit) get in touch. Thanks !

If you would like to see some other things in SAW, don't like something, want to add something of your own, help me somehow (really?!?), send me E-Mail. I will try to see what I can do...

### **Compatibility List**

SAW was tested with **no** problems found on the following systems:

#### **Operating Systems:**

- MS-DOS 5.0(A), 6.0, 6.2
- MS-Windows 3.1 and 3.11 (**not** for Workgroups - just plain)
- Debug MS-Windows 3.1
- Win32s 1.15, 1.20 (w/o OLE 2.0)
- WinG 1.0
- Novell Netware 3.11, 3.12, 4.0

## **Utilities:**

- B&W WinSock 3.1 TCP/IP stack
- Trumpet WinSock 2.0B TCP/IP stack
- MS-Mouse 2 9.01, 9.01b
- Genius Mouse 10.20
- PC Tools 7.1, Pro 8.0
- Norton Utilities 4.5, 7.0
- QEMM386 6.X
- 4DOS 5.X (for testing only)
- HyperDisk 4.65 (for testing only)

## **Computers:**

### *- Processors:*

- Intel i486DX-33 '91, i486DX2-66 '94
- AMD 386SX-20/25/40, 386DX-40
- Cyrix 486DLC-33

### *- Buses:*

- ISA
- VESA VL-BUS

### *- Memory:*

- 4Mb, 8Mb

### *- BIOS:*

- AMI BIOS Hi-Flex '91, '92, '93
- AMI Win-BIOS '93

### *- Drives:*

- IDE Fujitsu, Seagate, Western Digital

### *- Hard Disk Controllers:*

- Promise Technologies DC-200 (286-12) 2Mb Cache IDE/ISA '93
- Vanilla IDE/VL-BUS
- Vanilla IDE/ISA

### *- Graphic Cards:*

- Trident 8900C 1Mb ISA '91
- Spea-V7 Mirage S3-801C 1Mb ISA '93
- Cirrus Logic CL-GD540X/542X 1Mb VL-BUS SVGA '92, '93
- Tseng 2142 512Kb VGA ISA '90

### *- Sound Cards:*

- Orchid Sound Producer Pro 8bit, Stereo '92
- Sound Blaster Pro 8bit, Stereo '91
- PC Speaker :)

### *- Serial Port UARTs:*

- 16540

**Note:** If anyone has tested SAW with **no** problems on his/her system (in the respective department) and doesn't mind sharing his/her setup with me (to be included in the list above) and has spare time, I will be grateful if they could send me their setup, i.e. a report.

**Note:** As the University buys in bulk, there's *no* variation in system characteristics; worse, students buy the same hardware from the University's shop, so there's little chance to test all the code... Many add-ons, utilities, etc. cost money, which I(/we) cannot afford, so there's really nothing more I can do...

### **My SAW.INI file**

I like the *symmetrical* look (*File-Options-Button Options-Align Buttons*). This is not the default, but if you don't want to experiment with the program options, you can just include (or replace) in the SAW.INI file the options below:

```
----SAW.INI - Cut Here----  
[SAW_XX]  
TimeShow=1  
AlarmMode=1  
WindowForm=2  
ButtonAlign=2  
XPos=308  
YPos=164  
-----Cut Here-----
```

### **The SILLY STUFF - You do NOT have to read this...**

**SAW Install/UnInstall Program** - Hey, I thought it was pretty neat (it took some time to make all that stuff work) but only one person seemed to notice it. Well, hope you like the update version. If you don't I'll better change to *MsSetup* :)...

**DPMI Window Icon** - Some of you might think it's inappropriate to give it such an icon, but I do think it deserves it.

**Pascal Blues** - By the way, why are there 3 releases of C++ and only one of Pascal ? Why do Pascal programmers have to do with under-specified kit when Pascal can be just as *advanced* as C++ ? C'mon Borland, give us a chance ! Otherwise, SAW might become a Microsoft C++ Win32 app soon...

### **The End**

By the way, this document was supposed to be humorous as well - did you know that ? If you do not think it is then I'll add "*Sense of humour*" to the "*Bugs and Incompatibilities*" section in the next version... :)

Well, this is it...

***One more time, Enjoy SAW !***

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22/02/1995 (dd/mm/yyyy)