



Avolites Sapphire 2000
Software Release Notes
September 2000

Useful Avolites phone numbers: -

Avolites England

Sales and service* (+44) (0) 181 965 8522

Service out of hours* (+44) (0) 831 17 8888

Fax (+44) (0) 181 965 0290

Email sapphire (at) avolitesdownload.com

WWW <http://www.avolites.com>

Distribution of Avolites products in USA: -

Avolites America

Sales and service* (+1) 423 938 2057

Fax (+1) 423 938 2059

For a full listing of distributors please see our World Wide Web page.

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1. INTRODUCTION

This document provides a list of the new features and enhancements in the Sapphire Sep 2000 software as well as detailed instructions on how to upgrade. This document is intended for users who are already familiar with the Sapphire layout. If you require further information, send an Email to Shahid@avolites.com

To carry out the software upgrade you will need a program disk. Click <http://www.avolites.demon.co.uk/software/prog/s2000.exe> to download the program Disk.

To make a program disk:

1. On a PC, execute the downloaded file.
2. Insert a blank 1.4MB formatted disk and click on Unzip.
3. Label the disk "Sapphire Sep 2000"

Program disk contents:

- Sapflash.dat Main program file.
- Ram2000.prl AVOS upgrade Sep 2000
- Aps.cmp The full personality database in one file.
- P2000per.cmp Built-in personality cache file
- S2000.doc The release notes.

2. System Requirements

The Sapphire Sep 2000 software is designed for a Sapphire desk, which meets the following specification:

1. AVOS Sep 2000 installed. Refer to section 3.2

3. HOW TO UPGRADE

Before installing check that your desk meets the System Requirements, see section 2 and make sure that you have backed up your show, because you will be required to carry out a WIPEALL afterwards. To carry out the upgrade, follow the instructions from section 3.1 onwards. Here is a to do list

- Upgrade the AVOS to Sapphire Sep 2000
- Upgrade the main software
- Execute a Wipeall
- Load the built in personality files

3.1 How to ENTER the AVOS SYSTEM

You will need to ENTER the AVOS menu in order to install new software.

To enter AVOS:

- In SYSTEM mode press [A] SERVICE then press [A] RUN AVOS. Type in 68340 then hit [ENTER].
Alternatively,
- If the desk will not respond. Power OFF the desk and lift the lid after undoing the top 3 retaining screws. Place a jumper on the end link in the group of 8 links in the centre of the Borris motherboard. Switch ON the desk.

The AVOS menu will appear on the LCD screen and if the correct AVOS is installed the top line will be: - 'Sapphire 2000 Sep 18 2000'. If the date is earlier than this then you will need to upgrade the AVOS by following the instructions in section 3.2, otherwise proceed directly to section 3.3

3.2 How to install the Sep 2000 AVOS

ENTER the AVOS menu (see above). Note if the message on the top line of the LCD screen reads 'Sapphire 2000 Sep 18 2000' then you do not need to upgrade the AVOS, proceed directly to section 3.3.

1. Insert the program disk in the drive and press [E] AVOS Extender
2. Hit [ENTER] when prompted and wait about 10 seconds.
3. After loading the new AVOS the desk will reset. If the desk does not re-enter AVOS then follow the instructions in section 3.1. The top line should now read 'Sapphire 200 Sep 18 2000'. Proceed to section 3.3

3.3 How to install the Sapphire Sep 2000 Software

1. Make a backup of your show.
2. ENTER the AVOS menu, see section 3.1
3. Insert a blank 1.4Mb Disk and press [D] Save program. Keep this disk safe and use it to reload your original program should there be a problem with the upgrade.
4. Insert the program disk and press [B] Burn a New Program
5. Hit [ENTER] when prompted and wait until the message "100% Completed" appears. If the progress indicator stops short of 100% then there is a problem with the disk. You must recreate the program disk, but first format the disk, if possible format the disk in the desk.
6. Press [EXIT], then [1] Wipeall & Start System. If the desk locks up at this point then you may need to carry out a hard wipeall, see section 3.4
7. Proceed to section **Error! Reference source not found.**

3.4 How to carry out a Hard WIPEALL

You will need to do this if the desk does not respond after upgrading.

1. Switch OFF the desk
2. Lift up the top panel after undoing the top 3 retaining screws.
3. Place a jumper on 2 legs of the Wipeall link.
4. Switch ON and wait until the desk has properly initialised (about 10 seconds maximum) and then switch OFF the desk.
5. Replace the jumper onto one leg of the link, close the lid and tighten the screws by turning one-quarter turn clockwise.
6. Power ON the desk and reload your show from your backup disks.

3.5 How to cache the built-in personality files

The built-in personality file will have to be re-loaded after upgrading the software. To do this:

1. Turn the Keyswitch to SYSTEM
2. Press [E] UTILITIES MENU
3. Insert the program disk
4. Press [D] Cache Personality Files. During this operation please disconnect all MIDI devices connected to the desk.
5. Wait for the file to be loaded (Cached) and then CHECKED. This will take about 3 minutes.
6. When the message "Personality Files successfully cached, Hit <EXIT>" appears, hit [EXIT]. If the message does not appear or the desk freezes, you will have to remake the program disk and repeat this process from step 1.

4. What's NEW in the Sapphire September 2000 Software

This software is based on the November 1999 software. Here is a list of the differences

4.1 Main Improvements

1. The desk no longer ceases when using the faders 18 to 20 to manually control a theatre stack.
2. Groups can be programmed on the palette keys.
3. Autoload now works consistently.
4. Playback flash keys now work in Takeover mode
5. In Run mode, unused pages are skipped when using the Next Page, Last Page keys.
6. Record by Fixture/Channel is now available in the Record Memory and in the Chase Record menus.
7. A new function in the Memory Record menu called Press to enable live update can be used to automatically load the memory after recording. This function can be used to prevent lights blinking on the stage after recording a memory and then clearing the programmer.
8. Script file improvements
 - i. A Theatre Stack GO can be recorded as a script file step

- ii. Multiple script files
 - iii. Delete/Copy step or whole script files
9. Disk import from Pearl 2000 and Azure 2000. Please note that, while the Sapphire will playback a show created on a Pearl or an Azure and while it is possible to extend the show after it has been imported, we do suggest that, if extensive programming is to be carried out on an imported show, that it is better to reprogram from a wipeall. Also, both preset focuses and shapes in memories are now properly imported.
 10. Visualiser Midi interface now supported
 11. It is now possible to import the Visualiser patch file.
 12. Link ON now works in theatre mode
 13. Preload works correctly
 14. Remote control now supported. Also, a theatre stack Go, Stop and Step back can now be executed from the Remote Control.
 15. Aps.cmp personality file support. This is the full database of personalities in one file.
 16. Manual control of a Theatre Stack no longer causes the desk to cease.
 17. When the Dimmer bank is selected, all 100-fixture intensities are now presented on the LCD screen. In the other attribute banks 50 fixtures by 2 attributes are presented.
 18. A shortened version of the release notes can now be viewed on the monitor. In SYSTEM mode press Softkey [F].
 19. When a Theatre Stack GO is pressed, the theatre stack playback becomes the latest playback and all fixtures used in the step are captured from other playbacks.
 20. A new option in the Chase Parameter (2nd menu) is now available to make the chase the latest playback when a Chase GO is pressed.
 21. Include now works in the Theatre Stack
 22. A new option called Remove Shape offset is now available in the Playback Parameters Menu. When enabled the shape offset is removed when the memory which is in control of the shape is switched OFF.
 23. When using Next/Last fixture, all fixtures in the programmer will be selected upon reaching the end or start of the list.
 24. A new function in the second ML menu called Deselect fixtures makes it possible to remove individual fixtures from the programmer.
 25. The Left and Right cursor keys are normally used to select Next and Last Fixture and this can be a problem when trying to change the screen view. Press and hold [AVOLITES] key and then press Softkey [B] until the Softkey display changes to FIXTURE CONTROL ENABLED, to free up the cursor keys for altering the view. Fixture selection can now be made using the chase direction control keys. Left for previous fixture, right arrow for Next Fixture, Review to select All fixtures already in the programmer, and Bounce to toggle between Highlight On and OFF.
 26. In the Theatre Stack menu, the delete function has been extended so that it is now possible to delete all steps in the theatre stack.

27. Press and hold Preset Add keys 21 and 30 and then switch ON the desk to automatically jump into the AVOS menu. This obviates the need to open the desk to enter the AVOS menu, if the desk is not functioning. In the AVOS menu press [1] then [ENTER] to start system and wipeall.
28. After a disk save the desk will automatically carry out a disk verify. This doubles the time taken to make a backup, but may prevent a possible loss of a show.

4.2 Other Improvements

1. After editing a script file and then saving the show, it was not possible, to view the list of script files, this now works.
2. In the theatre stack when creating a new Autoload step, the link was always set to ON, this is now fixed
3. When controlling the script file with external timecode, if the tape is rewound, all playbacks will be cleared.
4. Shapes in the programmer are now always stopped when clear is pressed.
5. It is now possible to preview the Theatre Stack. Press View followed by playback swop 17.
6. Script file Synchronise now works and forces the script file to catch up and lock onto the current timecode
7. It is now possible, after creating a script file, to select a script file step and to output it.
8. Toggle group, in the Input Timecode menu now works
9. The script file list is now tidier.
10. The Total steps used by a script file are now shown in the script file list screen.
11. When script timer is set to External Midi Timecode, the Visualiser is now disabled.
12. Calculator function improved. This entry point is from the 2nd ML Menu. Divide by zero no longer causes the desk to cease, Hex and Binary conversion now works correctly.
13. It is now possible to delete Shared preset focuses
14. When re-recording a memory, the fixtures already present in the memory are recorded by Channel as a rule. This is to prevent, for example, fixture colour from being overwritten when only the fixture position has been changed. Fixtures not present in the memory are recorded by Fixture, if Record by Fixture is set.
15. Chase and shape playback is now no longer interrupted when a Macro is executed.
16. The User menu no longer becomes corrupted when the User Menu is entered through the AVOLITES menu.
17. The Flash button response slows in proportion with the number of memories programmed. This has now been fixed. Occasionally turn the keyswitch to Run after a heavy programming session to optimise the desk.

18. The DMX-in buffer is now cleared on start-up to prevent stray data entering the programmer when INCLUDE from DMX-in is used
19. A shape memory can now be safely included into the programmer irrespective of whether the playback fader is up or down.
20. Channels can now be switched OFF in a shared preset focus.
21. It is possible to preview a memory on the Visualiser and to view selected fixtures, if the Visualiser Midi interface is used. Note that to view selected fixtures the desk fixture handles must be set in the Visualiser fixture properties.
22. When previewing a Theatre Stack, the on screen legend of the previous step is now properly erased.
23. When sound to light is ON and the chase is connected, the wheels cannot be used to control fixtures, disconnect the chase and the problem is solved.
24. Theatre Stack Manual control of the LTP timer using playback fader 20 no longer causes wheel A to stop working.
25. The Script file Title on the screen is now shown correctly
26. It is now possible to continue to use the Wheels to manually control a theatre stack; previously the wheels would revert to speed control at the end of the step.
27. When running a chase sometimes one light would fade to the wrong position, this is now fixed.
28. Midi Stop/Go now works on Midi Slave desks
29. The Delete Shape prompt is now correct
30. When viewing Chase or Theatre Stack times on the VGA, the desk no longer slows down if the Next step is not visible.
31. Fixtures are now correctly deselected from the programmer after using @
32. Removed the option to Ramp down a Theatre Stack in the Script file. This has now been replaced with Theatre Stack GO.
33. Fixtures are now correctly deselected from the programmed after using Align.
34. The 4 points on the tablet Stage position control, now line up with the 4 points defined on the stage.
35. Focus recall now works on the tablet
36. Using the Left or Right Cursor keys during Visualiser CSV file import no longer crashes the desk.
37. When using the Wheels to manually control a Theatre Stack, at the end of the step, the wheels must be turned back before the next step is loaded. This is to provide better control and prevent a run-in into the next step.
38. When using manual control the fixtures no longer bounce to the previous step before moving to the correct position.
39. When the snapshot buffer is full, FULL is displayed on the screen.
40. Channel entry fixture selection improved.
41. When the 24-hour clock is used to run the script file, script file steps are now loaded on the nearest frame rather than on the nearest second.
42. After using a timed focus to change the position of some fixtures, the fixtures no longer jump when the wheels are next used to set the position.
43. The playbacks are now actually cleared and reset after executing the function 'Reset playbacks' from the script file menu.

44. It is now possible to scroll through the script file screen when editing a script file step.
45. It is now possible to enter a Ramp time in tenths of a second, during script file editing.
46. The cursor no longer disappears when entering a time for a script file step off the numeric keyboard.
47. Sort timecode now always works. This function can be used to rearrange steps in a script file, by first altering the step times then executing this function.
48. When entering the frame time for a script file step, if the frame size is exceeded then the frame value is clamped at the maximum value, previously the seconds' field would have been altered.
49. When the current script file is deleted, its steps are removed from the screen.
50. Theatre stack screen title is now correctly labelled
51. When [CHANNEL] plotting is entered in Theatre Stack Programming, the screen will change to Stage View, however, the screen will not change back to Stack times, when the plotting menu is exited. To view Theatre Stack Times, press [View] followed by [CONNECT].
52. When a theatre stack step is recorded, it becomes the live step. This is useful because if CLEAR is pressed then no changes will occur on the stage, Note that this is true only if playback fader 17 is set to full.
53. When a chase is created the speed is now set to 1 step per second, previously the chase would take on a speed depending on the times last programmed in the theatre stack.
54. Theatre steps can now be assigned a step number in the range 0.1 to 6000.0
55. After using the patch utilities INSTANT and INVERT, fixtures are now correctly deselected from the programmer.
56. When calibrating lights, the desk no longer gives a divide by zero bus error
57. Tablet align now works both in Tracking and non-tracking mode
58. Tablet cursor keys now produce both an up and a down code and so cause no problem with the auto-repeat, previously the desk would cease if the tablet cursor keys were used.
59. Flip now works for moving head fixtures, which move more than 360 degrees in the full DMX range.
60. The chase screen is no longer corrupted when a chase is disconnected
61. The desk no longer ceases when a disk error occurs during the catalogue function
62. The disk drive is now switched off after a catalogue function
63. The correct fixtures are now selected when the focus recall function is used on the tablet.
64. The script file is limited to 2500 steps, when this occurs the [EXIT] key now works properly, in the script file steps limit warning menu.
65. The total steps used in a script file is now shown on the screen
66. It is now possible to view more than 15 script files, all the way up to 99
67. Snap a chase step now works correctly
68. Memory chase and preset focus preview now works correctly
69. Cut to live in the Theatre stack menu now works correctly

70. If the Theatre Stack is connected, renumber in the chase insert step menu now works.
71. Using the wheels to set the fixture position when tracking is enabled is now more responsive
72. Midi test screen now works correctly
73. When script files are on view, the screen cursor is now disabled.
74. It is now not possible to enter Reduction mode unless the AVOLITES key is held when Reduction is pressed.
75. It is now possible to re-patch fixtures, which use 16-bit pan and tilt.
76. When the Theatre Stack main menu is entered, the default times are set to 1 second fade, 0 seconds wait, at all other times the default times are set to the last time that was input.
77. It is now possible to load timed focuses 101 to 200.
78. LCD preview screen now shows both attributes on each attribute bank
79. In Program mode, the playback ADD and SWOP keys can be used to GO and to STOP a chase, in Run mode the ADD key can be used to GO a chase.
80. The User Setting Menu can be entered from the AVOLITES menu.
81. The Sapphire now continues to function normally after turning the keyswitch to Run from Program during Disk Catalogue.
82. The DMX frame size can be shortened to improve the DMX frame refresh, the range is now 256 to 512
83. If the current step is set to 0 in the Theatre Stack menu, the Record menu can still be entered.
84. All references to a deleted focus are now removed from both memories and steps.
85. It is now possible to safely overwrite a Theatre Stack Step. A warning will be displayed and [ENTER] must be pressed to overwrite.
86. A progress indicator is now displayed during script file step, this will only be visible for a long, greater than a 200 step, script file.
87. The internal DMX lines (A to D) can now be assigned to output connectors 1 to 4 as required
88. The Script file end time is now properly set when the script file is both created and when it is subsequently edited.
89. Focus Save, View and Recall now works correctly for focuses in the range 121 to 200. Also it is now possible to delete focuses greater than 30
90. Disk verify now works correctly
91. After Select All is used, fixture deselect now works correctly
92. The Snapback function now works correctly.
93. The Disk catalogue function now shows the software version in use when the show disk was created.
94. Mode 2 memories now return to the original position when the playback fader is lowered to zero, even after repeated use.
95. Channels switched OFF in the programmer are now correctly indicated on the screen. Previously, if a focus had been applied to these channels, then OFF would not be indicated.

96. Recall group now works during chase programming
97. Delete focus now also deletes the focus legend
98. Page number now displayed on the LCD screen whether or not there is a page legend present.
99. Legend input menu now displayed both on the LCD screen and on the VGA monitor

4.3 New Peripherals now supported

1. Genius HR III Graphics tablet.
2. Avance Logic VGA card.
3. ST9 R50
4. Support for disk drive 0 & 1

4.4 Precautions

1. It is now possible to store groups on the palette keys. No warning is given if a focus is stored on a group. Please note that the overwritten group is not actually deleted, but can still be recalled by number. When the focus is deleted the group palette is restored.
2. When re-recording a memory with a shape, remember to include the memory first otherwise the shape will be deleted.
3. When a mode 0 shape memory is up and running and a SWOP on another playback is pressed, the shape will not stop.
4. When a Mode 2 Shape memory is up and running and even though the shape playback parameter for this memory is set so that the shape size diminishes to zero when the memory is taken out, when SWOP on another playback is pressed the shape size is indeed reduced but not quite to zero, it is set to the off value of the playback (normally 1%).
5. When using the [AVOLITES] key to enter the User settings menu, if the Avolites key is again pressed, the User setting menu exits but the user settings remains on the LCD screen. Press [View] followed by Softkey [A] to restore the screen to Channel output.
6. The rule used to recall a focus from the palettes is different from the one used to recall a focus using either numeric entry or the Preset Add keys. Recalling a focus using the Preset Add keys will load into the programmer only those attributes which are in the Focus mask and will load only for the selected fixtures, if no fixtures are selected then all fixtures will be recalled and if the bank is set to dimmer then all attributes will be recalled. Recall a focus from the palette keys and the entire contents of the focus will be loaded into the programmer.
7. Press [View] twice to reset the LCD screen. This is a previously undocumented function, but may be useful to know about.
8. It is not possible to alter the view on the VGA screen if the view on the LCD screen is set to Script files.

5. TIPS

5.1 Script file programming

1. When editing the script file, switch OFF Global Auto-run. When enabled the desk will attempt to load and run a script file that matches the timecode.
2. In script file, on the fly edit, before commencing the edit process select the option marked, 'start script from step 1'

5.2 Theatre stack programming

1. Set the current step to the one you wish to edit or create before activating a function.

5.3 Chase Programming

After programming a chase, turn the KEYSWITCH to RUN then back to PROGRAM. This causes the memory to be optimised and enables the Pearl to run at peak performance