



Integrating AV100 and Vault² Platforms

Broadcast Electronics Tech Note

THE INFORMATION IN THIS ARTICLE APPLIES TO:

All AudioVAULT products

SUMMARY

Version 8.1 of the AudioVAULT software is capable of supporting both AV100 and non-AV100 hardware. We refer to this flexible new platform as **Vault²**.



In addition to AV100 cards, **Vault²** is capable of supporting hardware manufactured by Digigram and Creative Labs. More cards are being qualified as the **Vault²** evolves, making this a solution that combines the proven stability of the **AudioVAULT** software with the convenience and affordability of off-the-shelf hardware. Currently, we support the following audio hardware:

Broadcast Electronics AV100 Rev. 5
Digigram VX222
Digigram VX820
Digigram PCX820
Digigram PCX821
Digigram PCX822
Digigram PCX924
Digigram PCX440
Digigram PCXPocket V3
Digigram PCXPocket 440
Digigram VXPocket
Creative Labs Sound Blaster Live!

MORE INFORMATION

There are some important things to consider as you add or migrate to non-AV100 hardware.

- AudioVAULT software version
- PC Requirements
- License issues
- NFS and Audio file locations
- Application compatibility

AUDIOVAULT SOFTWARE VERSION

Only versions 8.1 and higher are capable of supporting both AV100 and non-AV100 hardware. Pre-8.0 could support only AV100 and 8.0 can only support non-AV100. Only 8.1 and higher can support both.

PC REQUIREMENTS

Particularly for computers with local sound cards, PC requirements are a little more demanding since some of the A/D and audio processing tasks have been moved to the CPU.

Operating System

Vault2 with local sound card support:

Windows 2000

Vault2 without local sound card support:

Windows 98SE

Windows 2000

Windows NT Workstation SP6

AV100:

Windows 98SE

Windows 2000

Windows NT Workstation SP6

PC Requirements...CPU

Vault2 with local sound card:

Pentium Class 500 or better

Vault2 without local sound card, Windows 2000:

Pentium Class 300

Vault2 without local sound card, Windows 98 SE:

Pentium Class 200

Vault2 without local sound card, Windows NT SP6:

Pentium Class 200

AV100, Windows 2000:

Pentium Class 500

AV100, Windows NT SP6:

Pentium Class

AV100 with AVAir or AVProd, Windows 98 SE:

Pentium Class 200

AV100 without AVAir or AVProd, Windows 98 SE:

486x66

PC Requirements...RAM

VaultXPRESS/Vault2 with local sound card:

Minimum 128 MB RAM

Vault2 without local sound card support:

Minimum 64 MB RAM

AV100, Windows 2000:

Minimum 128 MB RAM

AV100, Windows NT SP6:

Minimum 32 MB RAM

AV100 with AVAir or AVProd, Windows 98 SE:

Minimum 32 MB RAM

AV100 without AVAir or AVProd, Windows 98 SE:

Minimum 16 MB RAM

These are **minimum** system requirements. As is the case with most software packages, a faster CPU or more RAM will increase the performance of your system.

LICENSE ISSUES

To protect our software from unauthorized use Broadcast Electronics has added licensing technology to AudioVAULT software. Our licenses are either handled with encrypted license files on each machine, or with a server-based license manager. The **License Manager** reads information about purchased features from an encrypted license file on the computer running the **License Manager**. This computer will have a hardware dongle attached to its printer port that validates the license file. All clients connect to the **License Manager** over a TCP/IP network connection to obtain the license file information.

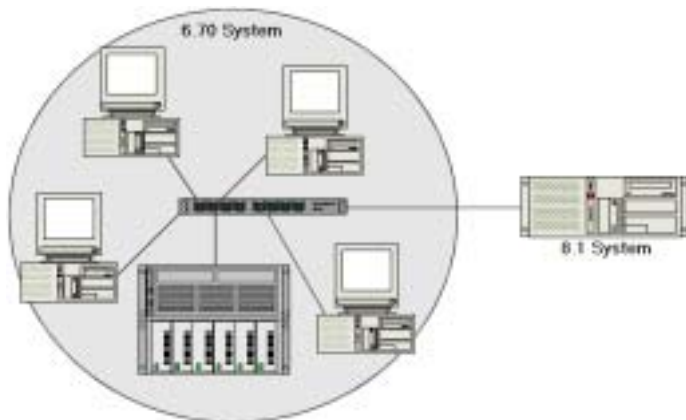
Version 8.1 of the AudioVAULT software deals with licensing differently in AV100, Vault² and mixed systems. AV100 customers will have the same access to all software components like they have always had. Vault² customers can purchase each component separately, so each component is individually licensed.

The license file specifies how many instances of a software feature can be open concurrently on a system. The license file may have only 4 **tokens** for AVAir for example. When a user launches AVAir, that computer sends a **checkout request** to the License Manager. The License Manager acts like an accountant, and knows how many tokens are left in the account. If a token is available, the License Manager allows the client application to take one, and AVAir is allowed to function normally. When the user closes that instance of AVAir, the token is returned to the License Manager. Another feature that is restricted through the license file is the number of sound card channels that can be in use on the system. Adding additional hardware to the system requires a modification to the license file.

If the client can't reach the License Manager (in the case of a network or computer failure) the feature may be allowed to operate in a **grace mode**. This mode will allow the feature to be used for up to 7 days, allowing the user to fix the problem.

6.7 AV100 SYSTEM ADDING 8.1 VAULT² COMPUTERS

Broadcast Electronics recommends that all AudioVAULT computers run the same version of software. If you decide to add a Vault² computer to your existing 6.70 system, and keep the 6.70 software, there are specific issues to keep in mind.



Due to application compatibility issues in most respects, this arrangement will function like two distinct systems. The 6.70 segment of your system will likely continue to operate as it does now, without any knowledge of the other hardware. Since 6.70 doesn't involve license files, the only license issues in this case have to do with the 8.1 system itself.

The 8.1 system will be able to operate independently, and NFS files back and forth between the two segments. AV100 hardware uses dedicated SCSI drives to store audio files in a proprietary file format. Non-AV100 hardware requires access to a standard Windows NTFS volume and stores 16-bit WAV files. Only 8.1 NFS is capable of seamlessly handling the transfer between the formats and file systems. In this situation, with an older version of the software, all of the file movement between the two segments (6.70 and 8.1) would have to be handled by the 8.1 NFS.

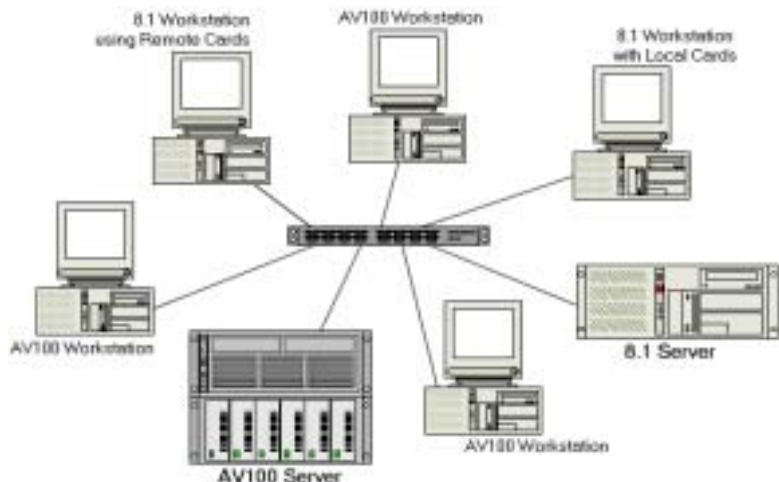
There are also compatibility issues with AVExplorer and AVScheduler. Having mixed software versions within a system requires that the two segments be kept as separate as possible.

8.1 AV100 SYSTEM ADDING 8.1 VAULT² COMPUTERS

With this arrangement, things are a little easier. Since all computers are running the same version of software, we don't have to worry about application compatibility issues. The only major remaining issues have to do with licensing and from where each machine gets its audio files.

On an AV100 computer, all applications are available, and licensing is handled by the AudioVAULT software. On a Vault² computer, each application is purchased separately.

If a computer is purely AV100, and has no interaction with non-AV100 hardware, licensing is handled within the AudioVAULT software itself. Any computer that does interact with non-AV100 hardware must validate against a central license manager. That license file must have a sufficient number of tokens, or licenses, available for **all** applications.



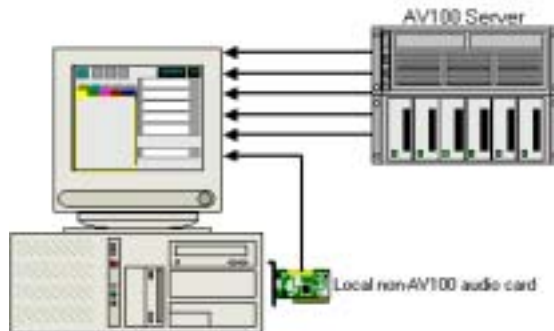
Non-AV100 soundcards must also have access to an NTFS file server volume. Non-AV100 sound cards cannot access dedicated AV100 SCSI storage. They must have access to WAV audio files on an NTFS volume. AudioVAULT's

Network File Server, or NFS, can transfer files between a SCSI AV100 volume and an NTFS volume.

AV100 WORKSTATION ADDING LOCAL DIGIGRAM CARD

One example of this type of upgrade is to add a non-AV100 playback channel to AVAir for use with Quick Starts. The main playback channels would still be provided by AVAir, but the Quick Start deck would be provided by a Digigram or SoundBlaster Live! card.

In addition to running version 8.1, the workstation must meet the PC requirements for a Vault² workstation with local sound cards. Since this workstation now interacts with non-AV100 hardware, a license file must be available with tokens for all applications in use by this machine, including the non-AV100 hardware channel and AVAir.



Non-AV100 soundcards must also have access to an NTFS file volume. Non-AV100 sound cards cannot access dedicated AV100 SCSI storage. They must have access to WAV audio files on an NTFS volume. AudioVAULT's Network File Server, or NFS, can transfer files between a SCSI AV100 volume and an NTFS volume.

MIGRATING FROM AV100 TO VAULT²

Eliminating AV100 cards completely and replacing them with non-AV100 hardware isn't difficult, but it is obviously a major change. It will be necessary to completely remove and reinstall the AudioVAULT software. Custom **audiovau.ini** files can be saved and restored, and existing audio files can be converted to the new format.

For additional information on this topic, please contact Broadcast Electronics Digital Customer Service at 217.224.4700. You can also email specific questions to service@bdcast.com.