

**AVENUE**

Avenue™ signal integration system

Avenue Version 2.0 Software Overview

ENSEMBLE

D E S I G N S

Revision 2.0.3 SW v2.0

This document provides a detailed overview of the Avenue Signal Integration system version 2.0 software upgrade now available from Ensemble Designs. It is intended to help you determine if a software upgrade is appropriate for your installation. It also provides instructions on downloading and installing the upgrade. This software upgrade can be downloaded free of charge from the Ensemble Designs web site and installed using the Avenue PC software application.

Included in this document are the following aspects of the upgrade:

- Why Upgrade?
 - System Requirements
 - Installation Requirements
- What is Version 2.0?
- How to Get Version 2.0
- How to Install the Software Upgrade

Why Upgrade?

This major software release from Ensemble Designs introduces powerful new features enhancing the control system for the Avenue Signal Integration System. Control system components include the 5030 (3 RU frame) or 5035 (1 RU frame) Control modules and the Avenue Touch Screens and Avenue PC application remote control options.

All of the software elements needed to upgrade are available from the Avenue web site. Instructions for downloading and installing the new software with the Avenue PC application are included in this document.

Version 2.0 Software release features include:

- Four User Levels for menu access and control
- Module Lock capability
- Addition of module memory registers for GPI control
- Creation of Virtual Modules with Avenue PC

These four capabilities will be available for each module that has Version 2.0 software. Version 1.x modules will not have the above four capabilities. Detailed descriptions of each feature are given in the **What is Software Version 2.0**

System Requirements

To utilize the control features of the software upgrade, Avenue frames must be equipped with at least one 5030 or 5035 Control module. To take full advantage of the version 2.0 features, it is recommended that all Control modules, Tabletop control panels, and audio/video modules in the system be upgraded at the same time. However, mixed software versions on audio/video modules may still be used in the Avenue frame. The Avenue PC application is required for downloading and performing the upgrade to this new version.

Installation Requirements

Installation of the software upgrade will require the system to be offline during the procedure. Time to perform the upgrade will depend on the number of frames and modules in your facility. You will need to plan a time when Ethernet or AveNet traffic is low to perform the upgrade. It is recommended you upgrade the Avenue PC application first, then download the upgrade to each individual frame Control module in each frame. You can then upgrade audio/video modules by one model type at a time.

Once the upgrade has been performed, some time will be required to become familiar with the new features and set up some of the new control parameters, such as user levels and module lock. An updated version of the Avenue System Overview document is included in the module download package to guide you through this process.

IMPORTANT: During Kernelv2.msf installation, power to the frame or tabletop cannot be interrupted.

What is Software Version 2.0?

The control system enhancements introduced in this upgrade are summarized below.

User Levels

With this new software version, access to module configuration and control menus using the Avenue Touch Screen and Avenue PC remote control options will include four user levels. Each of the user levels will allow access to certain control and operation parameters in the module menus — from a full-access administrator level to a closed access read only level.

User levels can be password protected by a four-digit pass code so level access may be assigned to different functional groups in any facility as desired. Some groups may need more expert level access to certain parameters while others require read-only access. Levels not accessible to certain users will appear grayed out but can always be viewed on a read-only basis.

Each module will have default level parameters set at the factory which correspond to the anticipated requirements of a typical operation. Customization of level parameters for each module may be done with Avenue PC. Avenue Touch Screens and Avenue PC come from the factory set to the Administrator level. It is recommended procedure to set and record a PIN for the Administrator level, at least. If no Administrator PIN is used operation of the system can be lost should an unknown PIN be inadvertently entered.

Module Lock

In addition to the four user levels for access, modules can also be locked out entirely from any Touch Screen or Avenue PC. These remote control options, called control points, allow locking modules from access in the following three ways:

1. **Off** – access is open to all control points on the network.
2. **Fully Locked** – access is locked to all control points on the network.
3. **Single Control Point** – access is locked out to all but one control point on the network.

Memory Registers

The addition of memory registers to Avenue modules extends the capability of the Avenue control system by enabling third party interfaces to control Avenue modules through memory register recall. Memory registers are used in conjunction with the Avenue 5820 GPI/Serial Interface module. This module provides General Purpose Interface control (GPI contact closure) over modules located anywhere in the Avenue system.

GPI or serial inputs from a third party device, such as an automation system, are mapped using the 5820 GPI menus to any Avenue module in the network. Using M2M™ (Module To Module) communication, the 5820 can communicate with any other module in any Avenue frame on the network. That module then recalls the specified memory register.

An optional 1 RU control panel is available to serve as a shot box. It has eight illuminated status pushbuttons that can also be used for manual override and status in automated systems.

Virtual Modules

The power and versatility of the Avenue Signal Integration System allows this new feature to be introduced. Creation of “Virtual Modules” is now possible through Avenue PC. This feature allows the user to create a customized Virtual Module that can combine functionality from any module in the system to suit the user’s needs.

For example, a user could define a Virtual Module that could convert analog video and audio to digital then embed the audio in the resulting 601 signal. This could be accomplished by creating a Virtual Module with video and audio A-D capability and include embedder capability.

Not only can Virtual Modules be created, but menu controls for each module are completely customizable for whatever configuration or control parameters are desired. For example, in the Virtual Module mentioned above, only video and audio level controls may be needed. The user can design the menus and parameter names to suit their needs.

Virtual Modules are created on the Avenue PC platform and downloaded to any control point on the network, including a Tabletop Touch Screen. The control point must contain a 5030/35 Control Module to act as a server for a Virtual Module. Both Physical and Virtual modules can appear to any control point on the network in the Frame list. Or viewing of the module type can be defined in system configuration.

How to Install Version 2.0 Software

Follow the installation instructions in the order they are given here. Find a time to perform this upgrade when the system is offline and Ethernet and AveNet traffic is low.

Install the software upgrade in the following order:

1. Avenue PC
2. 5030/5035 Control modules (Frame software) and Tabletop Control Panels
3. Individual video/audio module model types

Install Avenue PC Software

To install the Avenue PC 2.0 software upgrade do the following:

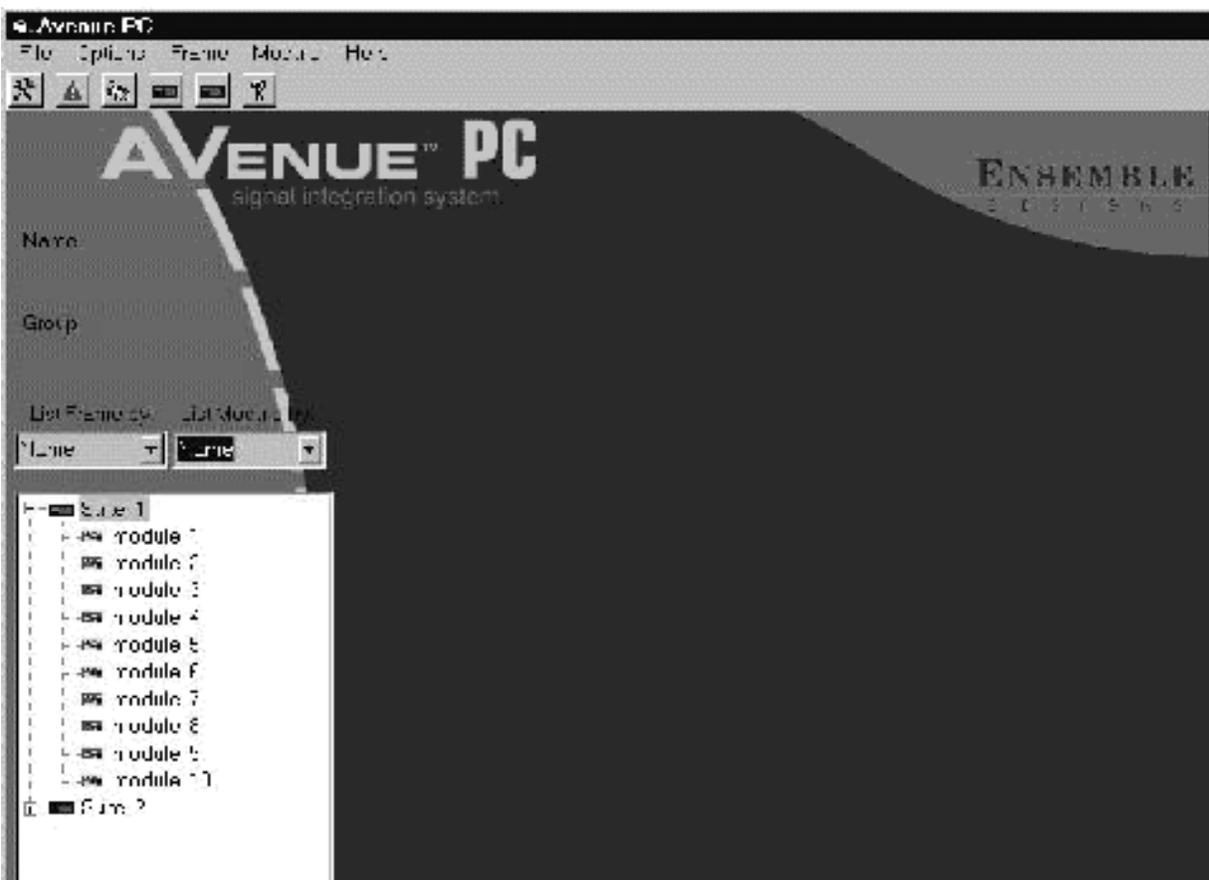
1. Open the Avenue PC application on your PC and check the Avenue PC version you are running by looking in the **Help** pulldown menus under **About...**
If the version is 1.3.0 or newer, installing the 2.0 version will overwrite the older one. For older versions (before 1.3.0), you will need to un-install the older Avenue PC application before you install the newer version or you may have two different versions on your machine.
2. Double-click on the version 2.0 Avenue PC **Setup** icon in the unzipped folder you created from the download. This will begin the new installation.
3. Follow the prompts to take you through the procedure. Install the application in the same directory as the older version.
4. The installation process will give you a shortcut to the Avenue application under the Windows **Start** button or you may install a shortcut on your desktop if desired.
5. Click on the Avenue PC icon to start the application.
6. You should see a list of Avenue frames your PC is connected to. If the PC is not connecting properly, go to the Avenue **Options** pulldown, **Preferences**, and set the IP address as needed or select the correct PC Comm Port. Each of these frames has a Control module that will need to be upgraded in the next section.

Install Control Module (Frame) Software

Each frame communicating with Avenue PC on the network has one Control module installed, either a 5030 (3 RU frame) or a 5035 (1 RU frame). The Control module contains the frame software. Each Frame Control module and Tabletop Control Panel must be upgraded.

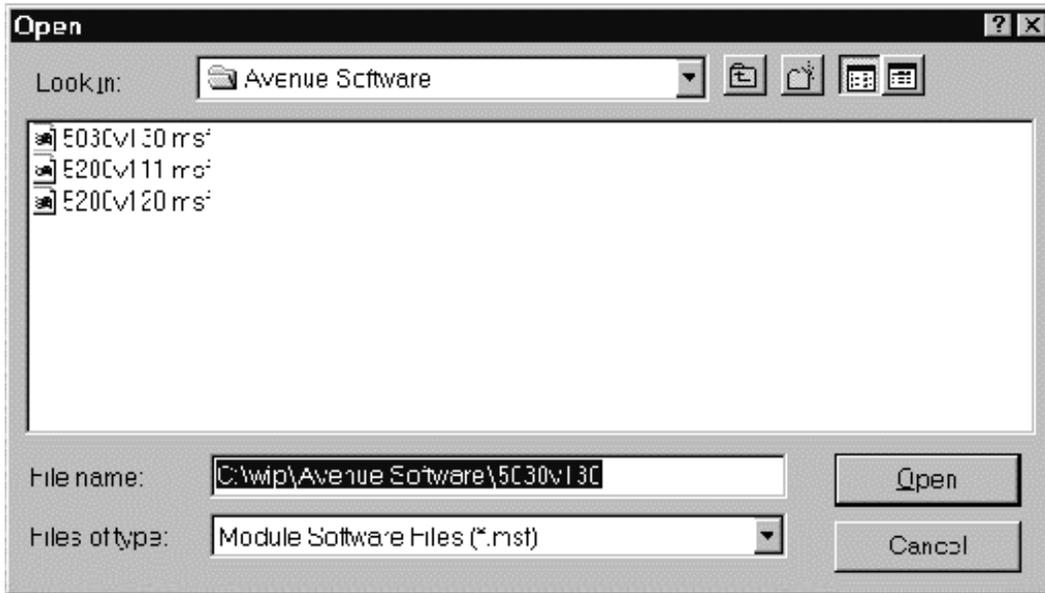
There are two files that are required for this upgrade: **kernel5030v200.msf** and **5030v2xx.msf**. The **kernel5030v200.msf** file needs to be installed first. During this process, be sure power to the frame or Tabletop is not interrupted. Secondly, the 5030v2xx.msf is installed onto the same frame or Tabletop control module.

1. Determine how many frames and Tabletops are present on your network from the Frame list at the left side of the Avenue PC main screen shown in the figure below.

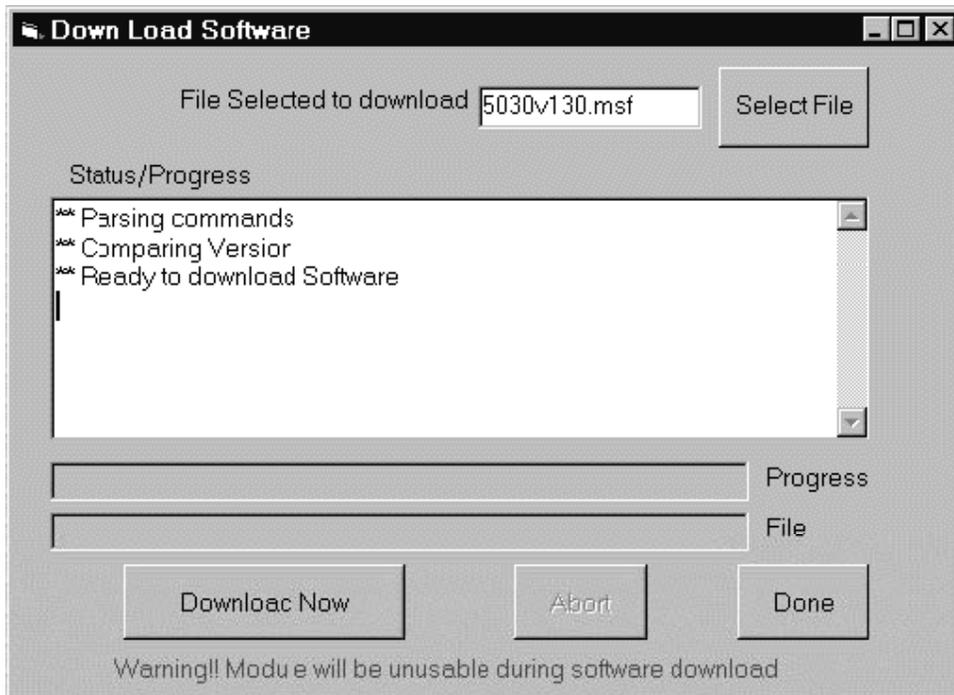


2. In the **List Frames By** pulldown, you can list your frames by **Name**, **Group**, or **Address ID**. Use this list to keep track of the frame upgrades and later for each individual video and audio module in each frame.
3. Click on the first frame in the list. In the **Frame** pulldown at the top of the screen, select **Update Frame Software**.

- This will bring up the **Open** file selection window shown below. Select the Control module file, **kernel5030v200.msf**, in the unzipped folder containing the modules software you have downloaded to your PC and select **Open**.



- This will bring up the **Download Software** screen shown below. The file for the 5030/35 module or Tabletop you have selected should appear in the **File Selected to download** box. If not, press **Select File** to return to the **Open** file menu above to locate the correct file. Avenue PC will not allow you to download an incorrect type of module file. It will however, allow you to download an earlier version and overwrite the current version.



6. To perform the download, press the **Download Now** button at the bottom left of the window. You will see the status script describing the progress of the download and a progress bar below it. During the software download, the **RUN** indicator on the front of the 5030/35 module will display **K**, indicating the module is operating in “kernel“ mode. (**K** should appear only in download mode and may indicate a software error at other times.)

You may abort the download by pressing the middle **Abort** button (grayed out in the illustration). This will result in an incomplete download and you will have to restart the download operation for the module to operate properly. The module will remain in “kernel” mode until a new download is completed.

7. After the download is finished, press the **Done** button in the window.

8. Now install **5030v2xx.msf** onto the same 5030/35 or Tabletop. Repeat steps 4 -7 with the **5030v2xx.msf**.

9. Verify that the module is now running the new software by going to the front of the 5030/35 Control module and enter the first status menu **VER**. The new software version loaded on the 5030/35 module should scroll across the display.

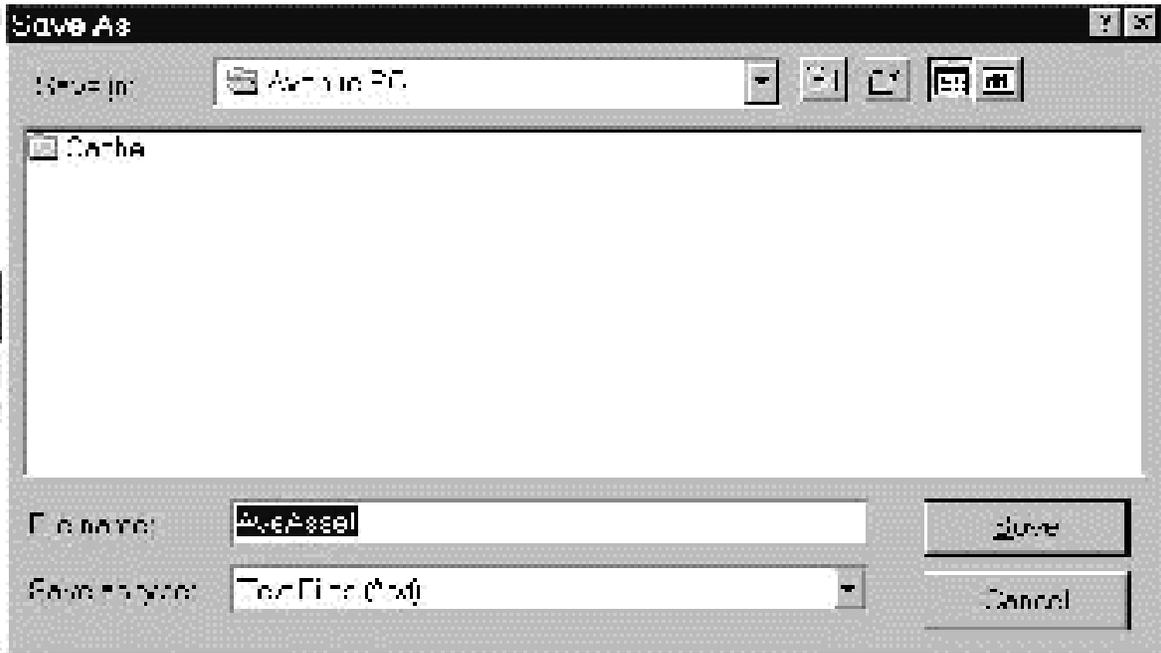
Verify that the Tabletop Control Panel is now running the new software by going to the Config menu and checking the software version.

10. Upgrade all the 5030/35 Control modules and Tabletop Control Panels in your system with the new version software in the same manner.

Install Video/Audio Module Software

Before upgrading software on the audio and video modules, you may wish to save the configuration data for each module. To do this, select each module in the frame list, then select **Save Module Configuration** in the **Module** pulldown at the top of the Avenue PC window. This will bring up the **Save As** window shown below.

Save the file with a descriptive name to identify it. All of the module configuration data will be saved to this file for later uploading if necessary.



To upgrade the video and audio modules in each frame, follow the procedure below:

1. Select the first frame in the list on the Avenue PC Main screen.
2. Expand the frame module list by selecting the (+) to view a list of the modules installed in the frame. Use the **List Module By** control to list the modules by **Name**, **Group**, **Slot**, **Model**, or **Type**.
Listing the modules by **Model** will allow you to upgrade each group of like modules in the system. Use any method that allows you to easily keep track of which modules have been upgraded.
4. Select a module in the list and then select **Update Module Software** in the **Module** pulldown menu at the top of the Avenue PC window.
5. This will bring up the **Open** file selection window shown earlier. Find the software file corresponding to the module type in the Modules folder you downloaded from the web site and select **Open**.
6. This will bring up the **Download Software** screen shown earlier. The file for the module you have selected should appear in the **File Selected to download** box. If not, press **Select File** to return to the **Open** file menu shown above to locate the correct file. Avenue PC will not allow you to download an incorrect type of module file. It will however, allow you to download an earlier version and overwrite the current version.

7. Upgrade each of the modules by model type in every Avenue frame in the system.
8. After installation is complete, verify that each module upgrade was successful by viewing the software version in the **Edit Names** pulldown in the **Modules** menu. Note the software revision number as shown in the example screen below.



9. This completes the Avenue software upgrade.
10. Refer to the new Avenue documentation included with this release listed below for details on using the new control features:

User Levels

Module Lock

Memory Registers

Virtual Modules

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