

CAN-8 VirtuaLab

Administrator Guide

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Getting Started

About this Guide

This document is written for CAN-8 VirtuaLab Master users, sometimes called System Supervisors, who are responsible for managing the software within the language lab.

In this manual, the functions are described in the order in which they are likely to be performed by the supervisor of a new system. When familiar with the system, you may modify the menu of your CAN-8 system to suit your needs.

About CAN-8 User Roles

When each CAN-8 user is registered, they are assigned a unique User ID and a password. The User ID is also assigned one of three possible user roles. Their role determines which user menu appears when they log in to CAN-8.

Users Registered as:	Can:
Master	<ul style="list-style-type: none"> • set system-level attributes to define languages and to create menus which determine how course material is organized; • register Instructors; • import registration information for groups of students; • manage video and system resources; and • do anything Instructors can do (except register individual students)
Instructors	<ul style="list-style-type: none"> • create and manage classes; • facilitate classes, track student progress and administer tests; <p>and may also, depending on how the master has set up their User ID:</p> <ul style="list-style-type: none"> • register individual students; • create lesson plans and author lesson and test items; and • delete student records.
Students	<ul style="list-style-type: none"> • study and record responses to CAN-8 lessons and tests

About the Master User

Only one User ID in each institution can be assigned to the role of Master user. You may decide to allow a few individuals to share this Master User ID (perhaps the System Supervisor and the head of each language department), but only one person can log in as the Master user at any time.

The Master user also has access to all menus and submenu available to Instructor and Student users.

NOTE There is usually more than one way to do things in CAN-8. For example, you can switch to Edit Menu mode in any of the following ways:

- From the Master Menu, choose Edit MENU System.

- From the menu bar at the top of the CAN-8 desktop, choose **Edit**, then **Menu**.
- From anywhere on the CAN-8 desktop, click the right mouse button, then from pop-up menu, choose **Edit Menu**.

However, in the interests of simplicity, the instructions provided in this manual include those requiring the fewest steps.

Logging In to CAN-8

To log in to CAN-8 as the Master user:

1. On your Windows desktop, double-click the CAN-8 shortcut.
The CAN-8 Login dialog appears.
2. In the User ID field type your CAN-8 User ID.
3. In the Password field type your CAN-8 password, then click **Login**.
The Master Menu appears on the CAN-8 desktop.

For example, the Master menu included with the standard system is shown below. (Yours may have been customized during or after installation.)

MASTER Menu - Supervisor Only	
D	Edit MENU System
D	Class Functions
D	Register Users
D	Access Instructor Menu
D	Access Student Menu
D	Report Functions
D	System Administration

NOTE The left column indicates the system attribute associated with each menu item. (For more information, see the two next chapters.)

Getting Help

Use the online *CAN-8 VirtuaLab Master Manual* any time you need more information.

To open the online Master Manual:

- ▶ Click the **Help** button.

The Introduction to the manual appears.

For additional information, refer to the following documents:

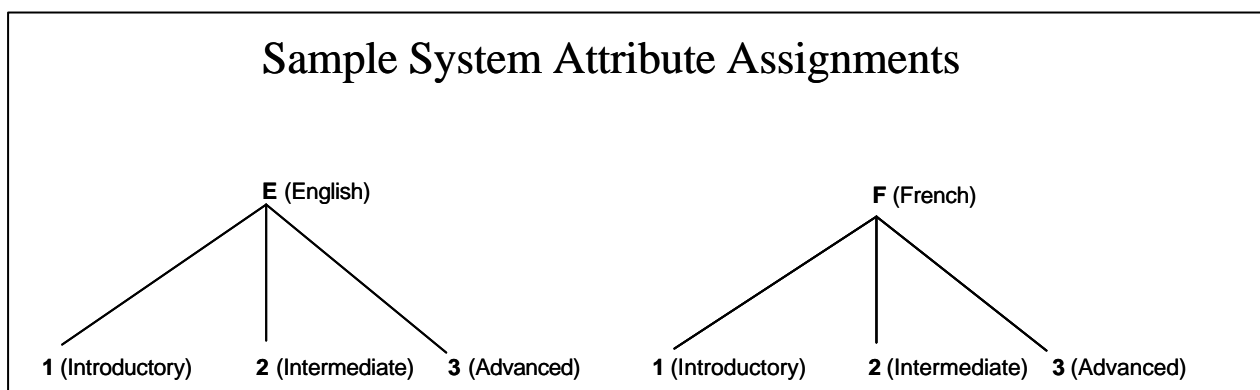
- *CAN-8 VirtuaLab Administration Guide*
- *CAN-8 VirtuaLab Authoring Guide*
- *CAN-8 VirtuaLab Teaching Guide*

Working with System Attributes

About System Attributes

System attributes define how information is structured on CAN-8 menus and which users have access to those menus. Up to 16 system attributes are assigned to specific menus, and consist of a single letter or number, and a description.

A simple example of how attributes are used is illustrated below:



When each menu is created, it is assigned an attribute. All submenus and lessons associated with that menu inherit the attribute(s) for that menu.

For example, in the sample above, the English menu is assigned attribute E and the French menu is assigned F. The Introductory level submenus for both languages are assigned the attribute 1, while attribute 2 is assigned to Intermediate, and 3 to Advanced.

When students are registered, they are assigned the attributes for the menus that they will use. For example, a student with the attributes E1 will see only the English menu and the Introductory submenu, while a student with the attributes E12 will see both the Introductory and Intermediate English submenus).

Similarly, when a class is created, it is assigned the attributes for the menus that will be used by that class. All students in that class will see whatever menus are associated with the attributes assigned to that class.

When each class, i.e., group of students, is created, it is assigned the attributes for the menus that will be used by that class. When users are registered, they are assigned a code for one or more classes. This makes it easy to define which menus a group of users will have, without having to set access to the menus individually. Similarly, simply changing the attributes for a class will change the attributes for all students who are members of that class.

For instructions on how to create classes, see the *CAN-8 VirtuaLab Administration Guide*.

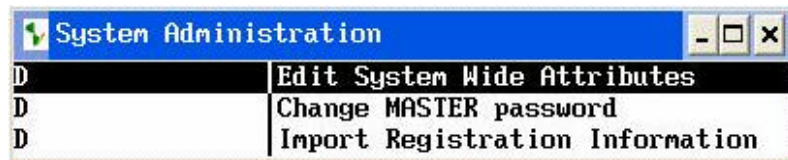
NOTE If no system attributes are assigned, all users will see no menu items.

Defining System Attributes

To define the system attributes:

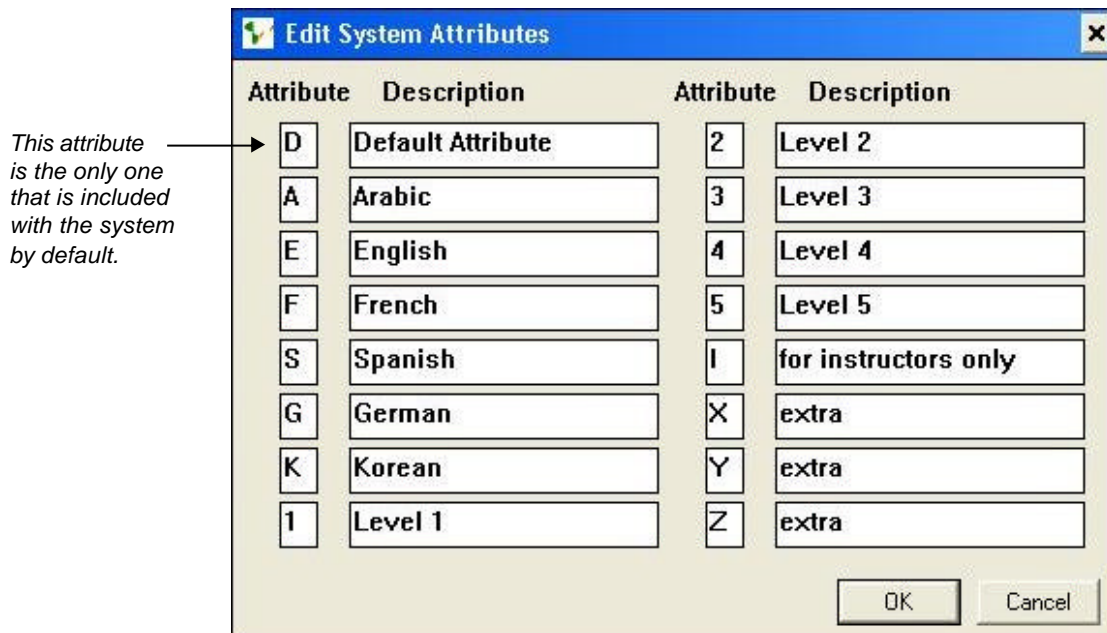
1. From the Master Menu, choose **System Administration**.

The System Administration menu appears, e.g.,



2. Choose **Edit System Wide Attributes**

The Edit System Attributes dialog appears, as shown in the example below for a school that has multiple languages and multiple levels:



3. In the Attribute field, type a single letter or number (1-9) for the first attribute you want to define. In the Description field, type a description. The Attributes appear only on Master screens and the Descriptions appear nowhere in the CAN-8 system except here.

NOTE It is important to specify all 16 system attributes before you create any course menus, even if the attributes are temporary ones. The reason for this is that attributes added later will automatically be associated with all previously created menus. In other words, it is best to create dummy attributes right at the start and then change them when you need them, e.g., when a new language is added to the system, rather than having to remove the new attribute(s) from the existing menus if you add additional attributes later.

Managing Menus

About the CAN-8 Menus and Menu Items

User menus are the top-level menus defined for each user role, i.e., Master, Instructor and Student. The associated user menu appears when the user logs in to CAN-8. For example, when a Student logs in, the Student (STUD) menu appears.

Menu items, including submenus, provide access to the lessons, other software applications such as MS Word, the Internet, and other special functions. Menu items appear on the user menus and other submenus.

The following types of menu items can be added to a CAN-8 menu:

This type of menu item:	Is used to:
EAASy II*	open an actual lesson
Submenu	open another menu
Babilon	give students access to the BABILON group conferencing function
Application	launch an application program, e.g., Microsoft Word
Internal	add an internal command. e.g., Change Own Password
Internet	launch an internet browser and go to a particular site
Media	open a media player directly from the menu

* Educators' Automatic Authoring System II

NOTE Before using the Internet and Media menu types, you must modify the SV.INI file on each workstation to have this functionality. The changes only need to be made once. For instructions, see the section below on *Modifying the SV.INI File*.

Edit Menu Mode

In order to make any modifications to the CAN-8 menus, you must be in Edit Menu mode.

To switch to Edit Menu mode:

- ▶ From anywhere on the CAN-8 desktop, click the right mouse button, then from the pop-up menu, choose **Edit Menu**.
Any menus that are currently open, appear with a red background, indicating that you are in Edit Menu mode.

To exit Edit Menu mode:

- ▶ Repeat the procedure for switching to Edit Menu mode.
The menu backgrounds no longer appear in red, indicating that you have exited Edit Menu mode.

NOTE If you have not saved any changes you have made to the menus, you are prompted to either save or discard them. (See the instructions below for *Saving Menu Changes*.)

Saving Menu Changes

After you have made any modifications to the CAN-8 menus, you must save these changes in order for them to take effect.

NOTE If you forget to do this, CAN-8 will remind you when you exit Edit Menu mode.

To save or discard menu changes:

1. From anywhere on the CAN-8 desktop, click the right mouse button.
A pop-up menu appears.
2. Do one of the following:
 - To save any changes you have made since you switched to Edit Menu mode, or since you last saved them, choose **Save Changes**
 - To discard any changes you have made since you switched to Edit Menu mode, or since you last saved them, choose **Abort Changes**.

Using Accented Characters

If you want to use accented characters in menu items or submenu title, you must enter them using ASCII character set codes. For additional information, go to: www.unicode.org.

Adding Menu Items

The general steps involved in adding a menu item are as follows:

1. Switch to Edit Menu mode.
2. To choose the menu on which the item will be inserted, navigate to the menu on which the item will appear.
3. Using the cursor arrow keys, highlight the item and press the right mouse button. A pop-up menu appears.
4. To choose where on the menu the item will appear, choose either **Insert Item Above** or **Insert Item Below**.

The following dialog appears:

5. In the Menu Item field type the name of the item as you want it to appear on the associated menu. (See the section above on *Using Accented Characters*.)
 6. In the Attributes field, from the complete list of available attributes shown, delete all those except the one, single-character attribute you want to assign to this menu item.
- NOTE** If you leave the complete list of attributes, all students will have access to this menu item. (For additional information, see the section on *Working with System Attributes*.)
7. Under Type, choose the menu item type you want to insert by clicking on it.

8. Complete the remaining fields as follows:

If you chose:	Do this:
EAASy II	<ul style="list-style-type: none"> • If you are creating a new lesson, you can leave the Path blank and allow CAN-8 to assign it for you, or you can type the name of the folder which will hold the lesson files. Giving a more user friendly name to the folder will make it easier to locate it later on. • If you are copying an existing lesson, see the section below on <i>Copying Menu Items</i>.
Submenu	<ul style="list-style-type: none"> • If you are creating a new menu, leave the Submenu blank to allow CAN-8 to assign it for you or enter one of your choice. • If you are copying an existing lesson, see the section below on <i>Copying Menu Items</i>.
Babilon	Choose this type if you want students to communicate in real time using the Babilon conferencing system. For a description of how to use Babilon, see the <i>CAN-8 VirtuaLab Teaching Guide</i> .
Application	<p>In the Path field, enter the full 8.3 type path and filename for the application. I.e: C:\Progra~1\Micros~1\Office</p> <p>Type the name of the executable in the Command field. You may add a space and the path and name of a file you wish this application to open I.e: Winword.exe C:\reports\xxx.doc</p>
Internal	<p>In the Path field, enter the name of the internal command, e.g., Change Own Password.</p> <p>For a complete list of Internal commands, refer to the Supervisor section of the online manual.</p>
Internet	<p>In the URL field, enter the web address for the site, e.g., http://www.c8users.com</p> <p>The browser to be used must be specified in the sv.ini file. See the section below on <i>Modifying the SV.INI</i>.</p>
Media	<p>In the Media field, enter the name of the media file you wish to open., e.g., C:\audio\xxx.wav</p> <p>A media Player of your choice must be specified in the sv.ini file. See the section below on <i>Modifying the SV.INI</i></p>

9. When you are finished, click **OK**, then from the menu bar at the top of the CAN-8 desktop, choose **Edit**, then **Menu**, then **Save Changes**.

Changing Menu Items

Use this procedure when you want to change the title of a menu item, modify the location of an application, or make other changes to existing menu items.

NOTE You cannot change the values for **Submenu**.

1. From the menu bar at the top of the CAN-8 desktop, choose **Edit**, then **Menu**.
2. Navigate to the menu containing the item you wish to change, then highlight the item using the cursor arrow keys and press the right mouse button.
A pop-up menu appears.
3. Choose **Change Item**.
The Menu Item dialog appears for that item.
4. Make whatever changes are required, then click **OK**.
5. Do one of the following:
 - To proceed with the change, choose **OK**, then from the menu bar at the top of the CAN-8 desktop, choose **Edit**, then **Save Changes**
 - To cancel the change, choose **Cancel** and then from the **Edit** menu choose **Abort Changes**

Copying Menu Items

You may wish to have the same lesson or submenu appear on more than one menu.

NOTE If you copy a submenu, the lesson content associated with that submenu will also be copied.

To copy a menu item:

1. From the menu bar at the top of the CAN-8 desktop, choose **Edit**, then **Menu**.
2. Navigate to the menu containing the item you wish to change, then highlight the item using the cursor arrow keys and press the right mouse button.
A pop-up menu appears.
3. Choose **Change Item**.
The Menu Item dialog appears for that item.
4. Do one of the following:
 - Make a note of the **Path** or **Submenu** for the item.
 - Highlight the **Path** for the item, then right-click and choose **Copy**.
5. Choose **Cancel** to close the dialog.
6. Add a new menu item, as described in the procedure above on *Adding Menu Items*.
You can use the same title or a new one

7. In the **Path** or **Submenu** field, type or copy (right-click and choose **Paste**) the value from the menu item you are copying.
8. Choose **OK**.
9. In the case of a submenu, you are prompted to decide if you want to link to an existing menu item, do one of the following:
 - If you do not plan to make changes to the content of the menu item, choose **Yes**.
 - If you do plan to change the content, choose **No** and proceed to the procedure below on *Linking Copied Items to the New Lesson Content*.

Linking Copied Items to the New Lesson Content

When you copy a menu item, the new menu item is linked to the content of the original. This means that if you change the content of either the original or the copy using the Planner or Recorder screens, the content of both the original and the copy will be affected.

IMPORTANT NOTE

If you want to keep one version intact and change the other, you must copy the source directory for that menu into a different directory. This must be done outside CAN-8 on the associated file server as follows:

1. Make a note of the path of the directory that you want to copy.
2. Make a copy of the original directory and note the name of the new directory that contains the copy.
3. Back in CAN-8, using the procedure on *Changing Menu Items*, enter this new path in the **Path** field of the new menu item.

Moving Menu Items

Use this procedure if you want to move an item to a different menu.

1. Create a new item on the menu where you want the item to appear.
2. In the **Path** field enter the path of the original lesson.
3. Delete the original item.

The old material will now be accessible from the new menu.

Deleting Menu Items

When you delete a menu item, you don't actually delete it from the CAN-8 system, just from the menu on which it appeared. If you know the path or tag of the item, you can re-use it any time by adding another menu item with the appropriate path or submenu tag. Therefore, be sure to note the path or tag of any item you delete in case you want to use it at some other future time

Use this procedure to remove an item from an existing CAN-8 menu:

1. Navigate to the menu containing the item you want to delete, then highlight the item using the cursor arrow keys.
2. Do one of the following:
 - From the menu bar at the top of the CAN-8 desktop, choose **Edit**, then **Menu**, then **Delete Item**.
 - From anywhere on the CAN-8 desktop, click the right mouse button, then from the pop-up menu, choose **Delete Item**.You are prompted to confirm the deletion.
3. Do one of the following:
 - To proceed with the deletion, choose **OK**.
 - To cancel the deletion, choose **Cancel**.
4. From the menu bar at the top of the CAN-8 desktop, choose **Edit**, then **Menu**, then **Save Changes**.

Hiding Menu Items

Normally, you will place items in the appropriate spot on the Student menu. For example, if an Instructor will be authoring a lesson on the Present Perfect Tense, then you would create an EAASy II menu item called Present Perfect Tense somewhere on the English menu. However, until the instructor has finished authoring the item, it should be hidden from the students' view. Similarly, you may want to hide a "test" menu item until a certain time.

There are four ways to hide a menu item:

The Master can:

- place the item in the correct spot on the Student menu, but give it a special attribute (e.g., "I" for instructors only, or "D" for draft version). If this temporary attribute is not assigned to any students, no students will be able to see it, even if it is on the menu. When the item is complete, change the attribute to one that students have been given. (You can only do this if you have an extra attribute that is not being used for languages or levels).
- place the item on the Instructor menu (which students cannot access), then when it is complete, create a new menu item on the Student menu with the path of the original item on the Instructor menu. (See *Linking Copied Items to the New Lesson Content*.)

The Instructor can:

- place the item in the correct spot on the Student menu with the correct attribute, then use the Wait to Start option. (For more information, refer to the section on *Preventing Students from Starting* in the *CAN-8 VirtuaLab Teaching Guide*.)

- use the Display Assignments option to “un-assign” the item so that it does not appear on the menu. When the lesson is ready, it can be “assigned”. For instructions on how to use assignments, consult the online help.

Modifying the SV.INI File

The SV.INI file is the initialization file for the Sounds Virtual CAN-8 system. It controls the default behavior of the CAN-8 client software. If either or both of a Media or Internet menu item type are part of your CAN-8 menu structure, the SVI.INI must be modified on each of the client workstations. Without these modifications, a "Configuration Error" will occur when a Media or Internet menu item is selected. Similarly, if obsolete client software is used, a "Corrupt Menu Item" message will occur when a Media or Internet menu item is selected.

NOTE The path for these items will vary from system to system, depending on where the browser and media player are installed. If you are not familiar with locating programs within the file structure of Windows, consult a technical person or a reference book on the subject before proceeding.

To modify the SV.INI file:

1. On each client workstation, using a text editor such as Notepad open the SV.INI file. Using a word processor or other editor that does not save the file in a text format will corrupt the file.

This file can be found in:

Operating system	Location of file
Windows 95/98/ME/XP	C:\Windows\sv.ini
Windows NT/2000	C:\WINNT

2. Add the appropriate line (or both) to the bottom of the [general] section.

media_browser="xxx"

Where xxx is the path to the selected browser.

media_player="xxxx"

Where xxxx is the path to the selected media player.

These paths must use the 8.3 format for filenames, so each component of the path must be no more than 8 characters long. You may truncate longer filenames after the sixth character and add ~1 to represent the deleted characters.

Description of the SV.INI file

The sv.ini file is composed of two sections: a **[general]** and a **[server]** section

- **The [general] section:**

All options in the [general] section of the SV.INI file consist of a **name** followed by an **equal sign** followed by the value for that option. The options are described as follows:

Nom	Valeur	Description
Files*	0	Do NOT use local disk as cache.
	1	Use local disk as cache.
Wave*	1	This parameter must remain untouched
Filter*	0	Disable input filter.
	1	Enable input filter. Boosts the highest and reduces lowest frequencies of recordings.
Wime	1	Initialize the Windows Asian text Ime support
Admin	1	Allows the system supervisor to use the string ADMIN instead of MASTER
Nofillblank	1	Disable space characters in F items
Keepalive	3-45	Default value can be adjusted between 3 and 45. Represents the laps of time in seconds at which the client sends keep alive packages to the server to keep ports active . Use only if firewall requires it.
Docpath	Path to the manual if the Manual is located on a network share. Ex :« X:\CAN8 »	The mapped drive must be represented by the same letter on all client stations. NOTE : This path stops at the CAN-8 folder.
Media_player**	Path to media player Ex : "C:\progra~1\window~1\mplayer2.exe"	Selects a media player to use for Media menu type. Pathname in 8.3 format only.

* These parameters are set by default to 1. They should remain the same.

** If either one of the items *Media* or *Internet* are present in your menu structure, the SV.INI must be modified on each client workstation to point to the browser or media player of your choice. If these parameters are not present in the sv.ini file, an error message will appear if one of these links is selected. Equally, if these links are selected in a copy of the software that predates the implementation of the se functions, a «corrupted Menu Item message will appear.

NOTE The acces paths to these items vary from system to system, depending on the location of the Internet Browser and the Media Player selected. If you cannot locate these files in the windows directory structure, consult your IT technician or the MS Windows Reference Manual before attempting to edit the SV.INI file.

- **The [server] section**

In the [server] section of the SV.INI file, the only entry that is recognized is the first one after the [server] header. This line consists of the server DNS name or IP address followed by an equal sign. This is the default server shown in the **Server** box on the CAN-8 client login screen.

There does not need to be any characters after the equal sign however one of the following may be selected :

Character	Signification
No character	The server's DNS name or IP address will be visible and editable by the user in the "server" field of the login screen.
+	The server's DNS name or IP address will be visible to the user in the SERVER field of the login screen, but not editable. (Greyed out)
*	The server field will be hidden to the users.

Example of a customized SV.INI:

```
[general]
version=sounds virtual windows 1.0
files=1
wave=1
media_browser="C:\progra~1\NETSCAPE\COMMUN~1\PROGRAM\NETSCAPE.EXE"
media_player="C:\progra~1>window~1\mplayer2.exe"
[server]
demo.sounds.com=+
```

Registering an Instructor

To register an instructor:

1. From the User Registration Menu, choose **Register a User**.

The Change/Register User dialog appears.

The screenshot shows the 'Change/Register User' dialog box. It features the following fields and options:

- User ID Code:** An empty text input field.
- User Name:** An empty text input field.
- Initial User Password:** A text input field containing eight asterisks (*****).
- Initial Menu:** A text input field containing the text 'INST'.
- Attributes:** A text input field containing the letter 'D'.
- Classes:** A section containing an empty list box, an 'Add' button, and a 'Del' button.
- Set Student Interface:** A button located below the 'Attributes' field.
- Instructor Options:** A section containing five checkboxes:
 - Change Plan
 - Delete Tracker Data
 - Student Registration Controls
 - Enable Tests in Tracker
 - Observe Online Users
- Buttons:** 'Set Image', 'OK', and 'Cancel' buttons are located at the bottom of the dialog.

2. In the User ID Code field, enter up to 18 letters and/or numbers that uniquely identify the user.
3. In the User Name field, enter the user's last name, then first name, using up to 30 characters.
4. In the Initial User Password field, do either of the following:
 - If you want to use the default password of **'PASSWORD'**, you can ignore this step. Instructors can change their passwords later.
 - If you want to override the default, enter up to eight letters and numbers. It must contain at least one number.
5. In the Initial Menu field, do either of the following:
 - If you want the standard Instructor menu to appear when the Instructor logs in, leave the default INST menu tag.
 - If you want a different menu to appear, enter the tag for that menu.
6. In the Attributes field, do one of the following:

- If you want the Instructor to have access to all material, leave all the attributes which appear by default.
 - If you don't want the Instructor to see certain material, delete the attributes for those menu items. (For example, you may want instructors to only see the material for the languages that they teach.)
7. Use the **Set Student Interface** button to define how the text and buttons appear. (The function buttons can be labeled with icons (large or small, regular or legacy) text only, or if desired, have no icons at all. The text in menus and lesson labels can be serif or sans serif font and be small, medium or large.)
 8. Under **Style**, choose either of the following to define the text and background colours for EASSY II lesson items:
 - For white text on a black background, choose **Black backgrounds**.
 - For black text on a white background, choose **White backgrounds**.
 9. Use the Instructor Options by checking or un-checking any or all of the following options:

To permit the instructor to:	Check this option:
• Modify Lesson Planners and screens	Change Plan
• delete students' data from the Tracking Screens	Delete Tracker Data
• perform all student registration functions	Student Registration Controls
• Observe and listen to users in real time with the <i>Real time Student Manager</i>	Observe Online Users

10. When you have completed all registration fields for the instructor, click **OK**.

Deleting an Instructor

Use this procedure to delete an instructor ID. This might be required for example, when a teacher leaves the school, or when you have created an Instructor ID for a specific course which is no longer offered.

To delete the registration information for a registered Instructor:

1. From the **User Registration Menu**, choose **Delete a User**.
A dialog appears prompting you to enter the User ID Code, or to use **Browse**.
2. Do one of the following:
 - If you know the User ID Code for the Instructor, enter it.
 - If you don't know the User ID Code, to display the list of registered instructors, click on **Browse**, then double-click on the instructor you want to delete.
 You are prompted to confirm the deletion.
3. Click **OK**.

Changing an Instructor's Registration

Use this procedure when you want to change information for a registered Instructor.

1. From the User Registration Menu, choose **Change a User**.

A dialog appears prompting you to enter the User ID Code, or to use **Browse**.

2. Do one of the following:

- If you know the User ID Code for the Instructor, enter it.
- If you don't know the User ID Code, to display the list of registered instructors, click on **Browse**, then double-click on the instructor you want to modify.

The Change/Register User dialog appears.

NOTE For details on each field, see *Registering an Instructor*.

4. Make whatever changes are required, then click **OK**.

Listing Registered Users

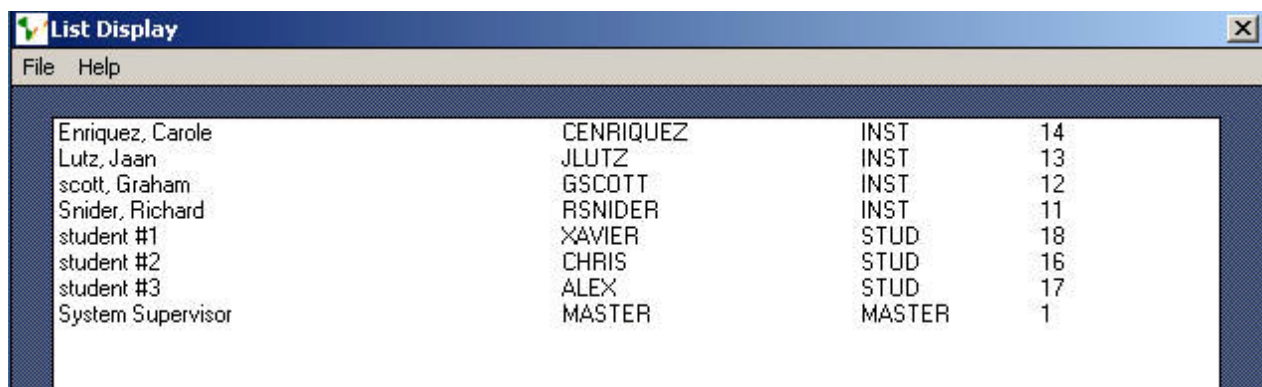
Use this procedure to display a list showing the User ID and Name of the registered Instructors, or the Instructors and Students.

1. From the User Registration Menu, choose **Display User List**.

You are prompted to choose which type of users whose information you want to see.

2. Choose either:

- **Instructors Only** (shows the list of all Instructors registered in the system) or
- **Instructors and Student** (shows the list of all users registered in the system)



The screenshot shows a window titled 'List Display' with a menu bar containing 'File' and 'Help'. The main area contains a table with four columns: User Name, User ID, User Role, and Internal ID Number.

Enriquez, Carole	CENRIQUEZ	INST	14
Lutz, Jaan	JLUTZ	INST	13
scott, Graham	GSCOTT	INST	12
Snider, Richard	RSNIDER	INST	11
student #1	XAVIER	STUD	18
student #2	CHRIS	STUD	16
student #3	ALEX	STUD	17
System Supervisor	MASTER	MASTER	1

This list includes 4 columns:

The 1st column shows the information from the "USER NAME" field.

The 2nd column shows the USER ID

The 3rd column gives the users default start menu.

The 4th is the user's *internal id number*. This internal number is used when restoring data.

Importing and Deleting Registration Information

Overview

The import registration function allows the Master to modify registration information for a number of users at one time. You can import external class and Student data, delete Student registration data, delete all registration data, or import Instructor data.

This process requires a specially formatted import file. You can create this file using a regular text editor, a database package, or a program that works with your institution's computer system.

The file must contain only ASCII data and all fields must be delimited by tabs. For more information about the import files, see the section below on *Preparing Import Files*.

NOTE Because the import process locks the user and class database, during the file import process no other users can be using the system.

To modify registration information:

1. From the **System Administration** menu, choose **Import Register Information**.

A message appears warning the user that you must know how to use this function before proceeding.

2. Locate the file you want to import, then click **OK**.

As the import proceeds, the status of the import is reported on the screen. During this process, a report called IMPORT.REP is created in the same directory as the import file.

3. When the import is finished, print the IMPORT.REP file and examine it carefully to verify that all users and classes were created or deleted correctly.

Preparing Import Files

Import files can consist of several different sections. There can be a section for deleting a list of Students or Instructors, or a section for clearing all users. Other sections can be used to delete student data or all registration information, to create class information, or to create registration records for Instructors. You can create separate files for each activity, or combine information for all activities in a single file.

Each section contains a section header as follows:

Refresh Section

The Refresh section can be used as follows:

```
[refresh]
```

REFRESH ALL is used to remove all registration information for the system, including Instructors and classes. The system is set back to the initial state as it was when CAN-8 was first installed. The Master password is also reset to PWORD.

[refresh]

REFRESH STUDENTS is used to remove the registered Students on the system, while leaving all Instructor and class information intact. Students are removed from classes, but the classes are not deleted. All assignments are removed. This command requires confirmation.

For both REFRESH ALL and REFRESH STUDENTS, the system requires a password to protect against accidental removal of data. The password is REMOVE DATA NOW and once entered, you must click the **OK** button with the mouse (simply pressing **Enter** will not perform the operation). Once the deletion process is started, it cannot be stopped.

Class Section

This is the file format for the class section of the import file:

[classes]

Code Class Name Instructor ID Term Attributes

where:

Code: Class code; maximum length 8 characters

Class Name: Class name; maximum length 40 characters

Instructor ID: Instructor User ID code. Instructors must be entered into the system before they are referenced in this file.

Term: Term information; maximum length 8 characters.

Attributes: Class attributes; maximum length 16 characters. Attributes must be entered into the system before they are referenced in this file.

Student Section

There are two permissible formats for the Student section of the import file, where <t> indicates a TAB character between each entry.

Basic Format :

[students]

ID <t> Name <t> Pass <t> Attributes <t> Inst ID<t> Class

where:

ID: Identification Code (will be used as login); maximum length 18 characters

Name: Student Name: last name first; comma-separated; maximum length 30 characters

Pass: Student password; maximum length 8 characters

Attributes: Student attributes; maximum length 16 characters. Attributes must be entered into the system before they are referenced in this file.

Inst ID: Instructor ID that is responsible for this student; maximum length 18 characters.

NOTE The instructor ID must be created before the student list is imported.

Class: The class the student belongs to. This field is optional and may be omitted.

Extended Format:

To invoke the extended format, the optional CLASS field must be replaced with a # character and be followed by the additional, extended, categories.

[students]

```
ID <t> Name <t> Pass<t> Attributes <t> Inst ID <t> # MENU <t>
Button <t> Interface <t> Lang<t> CLASS
```

where:

ID: Identification Code (will be used as login); maximum length 18 characters

Name: Student Name, last name first; comma-separated; maximum length 30 characters

Pass: Student password; maximum length 8 characters. Passwords should be unique. If the same password is imported for all students, they should be encouraged to change their password immediately.

Attributes: Student attribute bits; maximum length 16 characters. Attributes must be entered into the system before they are referenced in this file. You may add or remove attributes by placing a " + " or a " - " sign before the attributes listed for the student. If the attribute does not already exist for that student, it will be added.

Inst ID: Instructor ID that is responsible for this student; maximum length 18 characters

#: This designates the extended format for the student record. If you include this field, you must also include the following fields.

Menu: The student, or STUD, menu is the default. This field permits other customized menus to be assigned.

Button: The choices are:

- I** - Legacy Icons
- N** - Text buttons
- L** - Large Icons
- M** - New Icons
- O** - Large New Icons
- B** - No buttons

As well, any of the above letters may be followed by a modifier that sets the onscreen text format as follows. The default text is "**Small, Serif Font**" and has no modifier.

- P** - Medium Serif Font

- Q** - Large Serif Font
- R** - Small Sans Serif Font
- S** - Medium Sans-Serif Font
- T** - Large Sans Serif Font

For example, if you wanted large new icons with medium sans-serif text, the field contents would be: **OS**

Interface: The window style currently allows:

- T** - for traditional blue backgrounds
- W**- for windows grey backgrounds

It also inverts the sense of white and black text in student text-boxes.

This style character may be followed by a number of up to 3 digits that selects the cell on the planner screen that is used to set the background image for the menu. By leaving it blank, the number 0 (no image) is selected.

LANG: You may select different languages in the language field for the text style buttons if selected.

- EN** - English (default)
- FR** - French (buttons and menu bars)
- SP** - Spanish (buttons only)
- CH** - Chinese Hong Kong (buttons only)
- RU** - Russian (buttons only)
- CS** - Simplified Chinese (buttons only)
- UK** - Ukrainian (buttons only)

CLASS: Class student belongs to; maximum length 8 characters. **This field is optional and may be omitted.** For this reason, it is placed within square brackets [] in the examples below.

NOTES

- i) If fields between tabs are longer than the maximum length, they will be truncated without notice at the right end.
- ii) Instructor IDs must be created before running the import process. If the instructor ID referred to does not exist, the students are still created, however they are not associated with any instructors and instead will belong to the Master. They can still be placed in classes.
- iii) Classes must be imported/created before students. Classes and students may be imported in the same file, as long as the class section appears before the student section in the file.

- iv) All attributes referred to in the import file must be previously defined. Those that cannot be found will be ignored.
- v) To place a student in more than one class, repeat the student record in the file, using a different class each time.
- vi) If the class code is omitted on the student record, or refers to a non-existent class, the student will still be created, but will not be placed in any class.
- vii) The extended format (the fields following the #) may be used to either create new users, or to change the settings of existing students. To change existing students, use the ID of existing users and ensure that all fields of the extended format are included.
- viii) It is not necessary to include entries for all three categories in the file. For example, if you wish to import new classes and students, but not to delete any existing records, do not include [refresh].

Example File

The following is an example of a correctly formatted import file. The tab character is indicated with <t>; The carriage return character is indicated with <cr>:

```
[refresh]
REFRESH ALL

[classes]
ELI204<t>English Grammar 204<t>XST2<t>1996/4<t>EAB <cr>
ELI204<t>English Grammar 204<t>XST2<t>1996/4<t>EAB <cr>
ELF112<t>English Listening 112<t>SST2<t>1996/3<t>EAF<cr>
FLF343<t>Advanced French 343<t>XST3<t>1996/2<t>JAF<cr>

[students]
354453<t>Norweko, Olaf<t>OLAF<t>EAB<t>XST2<t>ELF112<cr>
523423<t>Izza, Ron<t>RON<t>EAB<t>SST2<t>ELF112<cr>
545345<t>Porreta, Peter<t>PETER<t>EAB<t>XST3<t>FLF343<cr>
545345<t>Porreta, Peter<t>PETER<t>EAB<t>XST3<t>ELI204<cr>
953423<t>Oggo, Ishkabibblewalla<t>ISHKABIB<t>JAF<t>SST2<t>ELI112<cr>
653424<t>Lim, Sue<t>SUE<t>EAB<t>XST3<t>ELI204<cr>
219853<t>Holden, John<t>JOHN<t>FJ<t>XST3<t>FLF343<cr>
287467<t>Frankenstien, Igor<t>IGOR<t>FJA<t>SST2<t>ELF112<cr>
024601<t>Valjean, Jean<t>JEAN<t>IEAB<t>SST2<t>#<t>STUD<t>I<t>W<t>EN<t>ELF1
12<cr>
537115<t>Kanneberg, Angela<t>ANGELA<t>IEAB<t>XST3<t>#<t>STUD<t>I<t>W<t>EN
<t>ELI204<cr>
```

NOTES

- i) Three instructors are referenced XST2, SST2, XST3
- ii) Three classes are created: ELI204, ELF112, FLF343
- iii) Nine students are created, student 545345 is put into two classes: FLF343 and ELI204
- iv) The last two lines of the input file demonstrate the extended format.

- v) Three instructors were referred to: XST2, SST2, and XST3. These instructors would have had to be created prior to running the import. If the instructor's ID referred to does not exist, the student is still created. However they are not associated with any instructor, but can still be placed in classes.

Creating Instructors with an Import File

The record format to register Instructors is the same as for Students in both the normal and extended format, with the exception that the Owner Instructor field is omitted.

The section header for registering Instructors is [inst].

Instructor Import File Format

```
ID <t>NAME<t>PASS<t>ATT[ <t>CLASS] <cr>
```

where:

```
<t>    = Tab character
<cr>  = carriage return
[]     = optional information
```

Extended Instructor Import File Format

```
ID<t>NAME<t>PASS<t>ATT<t>#<t>MENU<t>INTER<t>STYLE<t>LANG[ <t>CLASS]
```

where:

```
<t>    = Tab character
ID     = The user ID to be created/modified (max 18 chars)
NAME   = The name of the user (Max 30 chars)
PASS   = Initial Password of user (Max 8 chars)
ATT    = Attributes for user (Max 16 attributes)
#      = Extended format flag
MENU   = Starting Menu for the instructor
INTER, STYLE and LANG as in student's records
```

Example Instructor Import Section

```
[inst]
```

```
INST1<t>Instructor#1<t>PWORD<t>H<cr>
INST2<t>Instructor#2<t>PWORD<t>H<t>MA<cr>
INST3<t>Instructor#3<t>PWORD<t>H<t>#<t>INST<t>N<t>W<t>EN<cr>
INST4<t>Instructor#4<t>PWORD<t>H<t>#<t>INST<t>N<t>W<t>CH<t>MB<cr>
```

Deleting Users with an Import File

You can delete individual users from the registration import file.

Note that the same rules apply when deleting using an import file, as when deleting using the Registration menu. Deleting a user using either method removes all information pertaining to that user. If a user is created with the same name, the linkages to previously stored course material or tracking information is NOT preserved.

If you wish to change the user's attributes, or other settings, use the modify format of the extended import format records.

The section header in the import file contains the string:

```
[delete]
```

and is followed by a list of user ID codes to delete.

These lines may consist of only the user ID code, or be complete records that were used to originally create the students. This is to allow previously created import files to be made into user deletion lists by only changing the header on the file.

For example:

```
[delete]
```

```
BJONES  
PWILSON  
TSMITH
```

is equivalent to:

```
[delete]
```

```
BJONES <t> Bill Jones <t> PWORD <t> H <t> # <t> INST <t> N <t> W <t> CH  
PWILSON <t> Peter Wilson <t> PWORD <t> H <t> # <t> INST <t> N <t> W <t>  
CH <t> SECOND  
TSMITH <t> Tammy Smith <t> PWORD <t> D <t> INST2 <t> FIRST
```

Both files will result in the deletion of users BJONES, PWILSON, and TSMITH.

NOTE You may also delete Instructor codes in this same way.

Managing Resources

Managing Video Resources

Video Formats

Both .avi and .mpg video files may be imported into lessons authored in EAASy II. Only .avi files display the sound file at the bottom of the student screen. The other choices, .mpg, and .mpeg, do not appear on the selection box but may be accessed by typing the file name and extension into the file selection box directly.

Video Codecs

In general, when video is digitized into .avi or .mpg formats, the video clip is compressed by a particular video compression codec that may be associated with the video driver of the video card in the computer. To play that video clip on a client workstation, the appropriate codec must reside on the client computer.

The easiest way to ensure compatibility is to digitize or recompress files using a codec that resides on the client computers.

To confirm which codecs reside on a computer running Windows 95, 98 or later, look under Settings/Multimedia/Devices/Video Compression Codecs. A list will appear including items such as "Indeo video R.32 by Intel". We cannot recommend particular codecs, although using ones produced by large companies such as Intel is probably safest.

The next step is to digitize or recompress the video clips to use a codec you have found to be available on all of the client machines. Each video digitizing software program is slightly different, so it is not possible to provide detailed instructions about how to digitize or recompress video clips. Consult the documentation for your digitizing software and determine how to set the format to match the codec which you know exists on client machines.

Video Storage

In CAN-8, sound, text and image files are part of the lessons in which they appear. The author simply imports these elements into the lesson while creating the lesson. These components of the lesson are then available to anyone accessing the lesson.

This is not the case for video. Video clips are only linked into lessons and not directly imported. They should be stored on a file server in a directory that is able to be accessed by and streamed to the client workstations. It is not necessary that it be the same server where the CAN-8 system is located, but Microsoft File Sharing or other file sharing software such as Novell, must be installed on the machine that is to provide this shared resource.

For video files to be accessible on client machines, they must reside in a shared resource directory on a file server accessible from the client. Confirm that the shared resource is accessible from the workstation and place all video files into one shared directory with a suitable name (e.g., "video").

To make a directory shareable on a Microsoft-based server, right-click on the directory where the videos are stored. Choose Properties/Sharing. The default setting is "not sharing". Change this to "sharing". A little hand will appear under the folder indicating that this folder is now accessible from client stations on the network.

Care should be taken to ensure that access to this shared resource is read-only to prevent other users from erasing, modifying or adding their own files to the directory.

On each client machine you must map a network drive to the shared resource by browsing the network neighbourhood and selecting the server and drive you wish to access. To do this, right-click on the desired resource and select "Map network drive" from the pop-up menu. Choose a drive letter that is the same as the one used by the authoring station as well as all the other workstations. If the drive letter is different, some stations will not be able to access the video. Select "Reconnect at Login" to make the connection permanent.

Bandwidth requirements for video in CAN-8

Video compressed using MPEG 1 or 2 may have its compression rate adjusted such that the quality of the video is sacrificed to reduce the bandwidth required to transfer it. What follows is an analysis of bandwidth required based on our own experience with compressed video.

MPEG-1 was designed to use a standard frame size of 352x240 (SIF dimension) and in most cases delivers good quality video (and audio) at a rate of 64 KBytes/sec. MPEG-1 may use other frame sizes, the data rate will vary when the frame size and also the frame rate is changed. The maximum "nominal" data rate for MPEG-1 is 115 KBytes/sec, this may be used to calculate maximum bandwidth requirements.

Calculating for the number of stations:

$$30 \text{ Stations} * 115 \text{ KBytes/sec(peak)} = 3.4 \text{ MBytes/sec (peak)}$$

For average video:

$$30 \text{ Stations} * 64 \text{ KBytes/sec} = 1.9 \text{ Mbytes/sec}$$

This data rate is well within the limits of a network running at 100Mbits/sec (10MBytes/sec).

The MPEG-2 standard is in many ways similar to MPEG-1. The primary motivation behind MPEG-2 was to have a standard that is more practical to edit in such systems as non-linear video editing. MPEG-2 also increases the quality of the video slightly by allowing a greater number of bits of quantization for DC components along with more flexibility in the encoding scheme. This said, the data rates for MPEG-2 tend to be higher for similar frame sizes and rates than for MPEG-1. The benefit in the lab situation is a slight increase in the quality of the video. Some sample data rates for MPEG-2 are calculated below using a frame size of 352 X 480 (Half Horizontal CCIR 601 displays as 352 X 240) and frame rate of 24 fps. The difference in video quality at the stations may not be noticed by most viewers, especially if the source material is a VHS tape.

Calculating for 30 stations:

$$30 \text{ Stations} * 200 \text{ KBytes/sec(peak)} = 6 \text{ MBytes/sec (peak)}$$

Average rate using 352 x 240 frame size:

$$30 \text{ Stations} * 80 \text{ KBytes/sec} = 2.4 \text{ Mbytes/sec}$$

The average data rate is within the limits for 100Bit/sec ethernet but the peak rate may exceed it. Typical limits for ethernet are at approximately 30-40% of the bit rate (ie: 3-4 MBytes/sec).

In comparison, the data rates for the audio used by the CAN-8 system are very small. Our system uses our own format of compression that is done in real-time at the station when audio is recorded and is also decompressed when played back. The audio data transferred by the CAN-8 system is always in compressed form on the network.

The average data rate for the audio in compressed form is 6 Kbytes/sec.

Calculating for 30 Stations:

$$30 \text{ Stations} * 6 \text{ Kbytes/sec} = 240 \text{ Kbytes/sec}$$

Since each station may play and record at the same time, the peak rate would be double this number of 480 Kbytes/sec. In most cases the students are not playing and recording at the same time.

The CAN-8 system also has a live video broadcast capability in the "SCAN DVC" addition to the product. This feature allows the instructor to tune in, or play from a VCR a source of video and audio and have it broadcast in real-time to all the stations in the classroom. The video is digitized in the instructors station using appropriate video capture hardware such as the ATI All-in-wonder Pro and then the software performs a quick compression and broadcasts the video out to all the stations on the network. The typical data rate is 720 Kbytes/sec and does not change with the number of students as the packets are propagated on the network using broadcasts and all stations receive the same data. This data rate is within the capabilities of a 100Mbits/sec network.

Managing System Resources

The Master or someone else should monitor system resources on a regular basis and free up disk space as required. There should always be at least .5 gigabyte free space on the server to allow for student recordings.

The end of each school term is a good time to clean up files. There are a number of ways to do this, including:

System Refresh (see above)

This option removes all students, classes, assignments, and instructors. All data recorded by the students will be moved and stored temporarily in the \SVSYS\DELETED folder and can still be recovered.

Student Refresh

This option removes ALL students from the system but leaves instructors, and their class names intact. As above, student's recordings are moved to the DELETED folder.

Delete Selected Users With An Import File (see "Using Import to Delete Users")

You may delete specific users (students or instructors). The data attached to the deleted user will also be removed and placed in the Deleted folder.

Manually Delete Student Recordings

Delete the student records from individual Tracker screens if you want to remove only some of the files for a given student. The student records are only deleted for this lesson. The student answers for this lesson are deleted and placed in the Deleted folder.

The SVSYS\DELETED folder contains a series of directories that contain responses that were recorded for students that have been deleted from the tracker screens or from the system in general. These files may be backed up to tape for archival purposes if desired. To free up disk space on the server, these files may be deleted at any time. The server does not have to be stopped to delete these files.

User Access control file

To provide control over where licensed connections to CAN-8 servers originate from, an access control system has been implemented. The access controls allow the server administrator to allocate a specific number of licenses to a range of IP addresses. In this way, the server administrator may reserve a number of licenses for use in a classroom thus preventing others from outside the classroom from using them.

To setup the access controls, the server administrator must create a text file called ACCESS.CFG in the SVSYS\ID directory on the server.

The contents of this file are as follows. The first line defines the number of licensed connections the server may support. This number must match exactly with the number of licenses that have been purchased from Sounds Virtual. If this number does not agree, the server will either allocate licenses that will not connect, or never connect licenses that do exist. The form of this line is below:

```
license 40
```

In this case the server was licensed for 40 connections. There is one space between the word "license" and the number.

The remaining lines all take the same form. There may be up to 200 such lines in the file.

The form is as follows:

<starting IP address><whitespace><ending IP address><whitespace><number>

The fields are as follows:

<whitespace> - One or more space characters
<starting IP address> - First IP address (inclusive) of the range
<ending IP address> - Last IP address (inclusive) of the range
<number> - Number of licenses to allocate to the range

A typical line would look like this:

```
10.0.0.1 10.0.0.250 10
```

The above line allocates 10 possible connections to the range of addresses starting at 10.0.0.1 and up to and including 10.0.0.250.

The access control list works on a "pool" basis. The starting pool is the number of licenses specified in the "license mn" line. Each allocation line reserves licenses from this pool. When all the allocation lines have been read, any remaining licenses may be used from any location.

Extended Format

The extended format of the access.cfg file adds time and day restrictions to these reservations so that the CAN-8 server may automatically create these reservations depending on what day it is and during a defined time interval.

The enhanced format is:

```
<first IP><WS><last IP><WS><# res><WS><day><WS><start time><WS><end time>
```

Where:

<WS> - One or more space characters

<first IP> - First IP address in range

<last IP> - Last IP address in range

<# res> - Number of licenses reserved for this range

<day> - Day of week for this reservation where
0 = sunday

1 = monday

2 = tuesday

etc...

<start time> - Time (24 hr format) for this reservation to come into effect

<end time> - Time (24 hr format) at which this reservation no longer applies

All rules regarding overlapping reservations will apply to this format such that if multiple reservations overlap in time or by IP address, the rules appearing earlier in the list will be applied first to any available licenses.

The start time must always be earlier (smaller) than the end time or the line will be considered containing an error.

Lines with errors will be ignored by the server and a record of the error will be placed in the SERVER.LOG file.