



USER MANUAL



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1 Introduction

The *Ultra Analog Session* is a virtual analog synthesizer. This special edition is based on the synthesis engine of the well-known A|A|S *Ultra Analog-VA1*. With this instrument, we have not attempted to emulate a specific vintage analog synthesizer but rather to combine into a modern instrument, different features of legendary synthesizers. We have selected a certain number of engine configurations allowing for a wide range of tone from vintage analog to modern virtual analog synthesizers. Key controls and effects have been included resulting in a simple yet creative and versatile instrument.

The *Ultra Analog Session* generates sound by simulating the different components of the synthesizer through physical modeling. This technology uses the laws of physics to reproduce how an object or system produces sound. In the case of *Ultra Analog*, mathematical equations describing how analog circuits function are solved in real-time. The *Ultra Analog* uses no sampling or wavetable, it just calculates the sound as you play in accordance with the controls it receives. This sound synthesis method ensures unmatched sound quality, realism, warmth and playing dynamics.

Before discussing the synthesizer in more detail, we would like to take this opportunity to thank you for choosing an A|A|S product. We sincerely hope that this product will bring you inspiration, pleasure and fulfill your creative needs.

1.1 System requirements

The following computer configuration is necessary to run the *Ultra Analog Session*:

Mac OS :

- Mac OSX 10.2 (Jaguar) or later.
- G4 733 MHz Processor
- 256 MB RAM
- 1024 x 768 or higher screen resolution
- MIDI Keyboard (recommended)
- Ethernet Port
- Quicktime 4.0 or later

Windows :

- Windows 98SE/ME/2000/XP

- PIII 800 MHz
- 128 MB RAM
- 1024 x 768 or higher screen resolution
- DirectX or ASIO supported sound card
- MIDI Keyboard (recommended)

Keep in mind that the computational power required by the *Ultra Analog Session* depends on the number of voices of polyphony and the sampling rate used. These computer configurations will enable you to play the factory presets with a reasonable number of voices.

1.2 Installation

Mac OS

Insert the *Ultra Analog Session* program disc into your CD-ROM drive. Open the CD icon once it appears on your desktop. Click on the *Ultra Analog Session* Install icon and follow the instructions of the installer.

If you purchased this software online, simply double-click on the installer file that you have downloaded and follow the instructions of the installer.

Windows

Insert the *Ultra Analog Session* program disc into your CD-ROM drive. Launch Explorer to view the content of the CD-ROM and double-click on the installer file to launch the installer.

If you purchased this software online, simply double-click on the installer file that you have downloaded and follow the instructions of the installer.

1.3 Authorization and Registration

The *Ultra Analog Session* uses a proprietary challenge/response copy protection system which requires authorization of the product. A *challenge key* is a long string of capital letters and numbers that is generated uniquely for each machine during the registration process. In other words, for each machine you install this program on, a different challenge key will be generated by the program. The *response key* is another unique string of capital letters and numbers generated from the data encrypted in the challenge key. In order to obtain a response key, you will need to connect to the A|A|S website and provide the following information:

- A valid email address
- Your product serial number (on the back of the sleeve of your CD or in your confirmation email for downloads)
- The challenge key generated by the program

Note that it is possible to use the program during 15 days before completing the authorization process. This period can be convenient if you are installing the program on a computer which is not connected to the internet. After that period, the program will not function unless it is supplied with a response key.

In the following sections we review the different steps required to generate the challenge keys and obtain the response key. The procedure is similar on Windows XP and Mac OS systems.

1.3.1 Step 1: Generating the challenge key

After launching the installer for the first time, a pop-up window will appear asking you if you wish to authorize your product now or later. If you are ready to authorize *Ultra Analog Session* now, click on the **Next** button otherwise click on the **Authorize Later** button. If your computer is connected to the internet, we recommend that you authorize your product now.

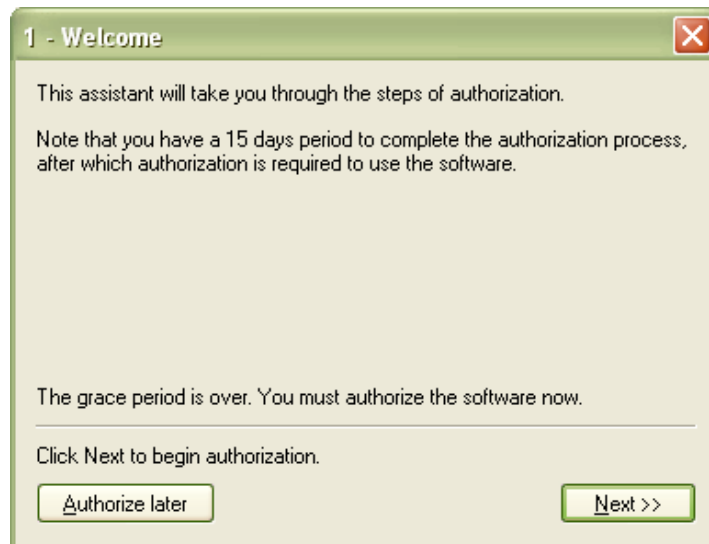
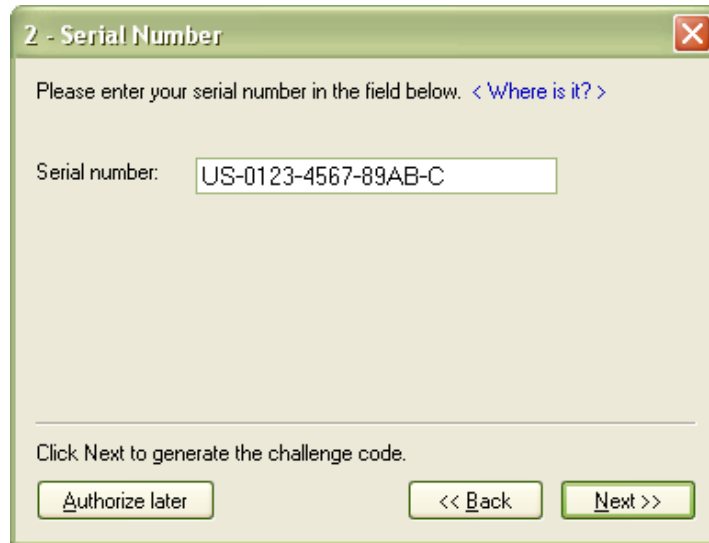


Figure 1: Choosing to authorize *Ultra Analog Session* now or later.

When you click on the **Next** button, a second window appears asking you to enter your serial number. Type your serial number as it appears on the back of the sleeve of the *Ultra Analog Session* CD-ROM. If you purchased *Ultra Analog Session* online, an email with your serial number will have been sent to you at the address which you provided during the purchase process.



2 - Serial Number

Please enter your serial number in the field below. < Where is it? >

Serial number: US-0123-4567-89AB-C

Click Next to generate the challenge code.

Authorize later << Back Next >>

Figure 2: Enter your serial number in the pop-up window.

After entering your serial number, click on the *Next* button and your challenge key will appear automatically in the next pop-up window.

1.3.2 Step 2: Generating the Response key and Registering your Product

If your computer is connected to the internet, click on the link to the A|A|S web server appearing in the pop-up window. This will launch your web browser and connect you to the unlock page of the A|A|S web server. Enter your email address, serial number and challenge key in the form as shown below and click on the *Submit* button.

The next form asks you to provide additional information about yourself including your mailing address and phone number. This information will be used to register your product. Note that only a valid email address is required to register your product. We nevertheless recommend this information be provided to ensure our support team is able to contact you to resolve any future support issues,

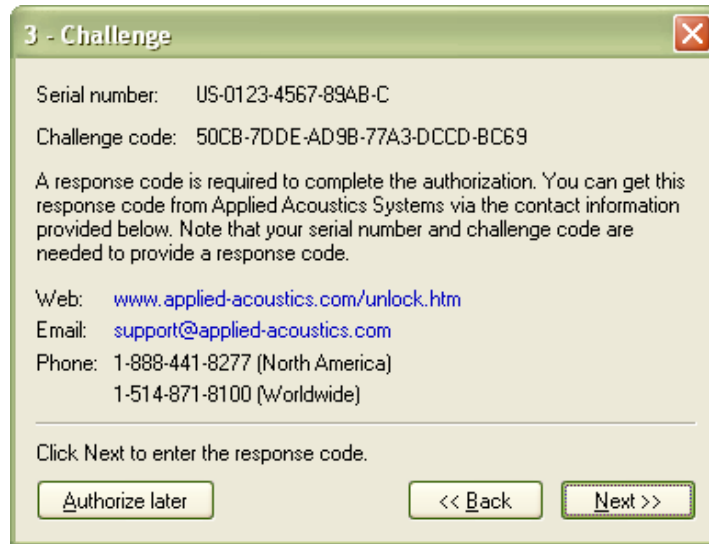


Figure 3: Challenge key appears automatically after entering the serial number.

Figure 4: Enter your registration information on the A|A|S webserver.

and notify you of product updates promptly. This information is kept completely confidential. Registration of your product will entitle you to receive support and download updates when available, as well as take advantage of special upgrade prices offered from time to time to registered A|A|S users. Note that if you already purchased or registered another A|A|S product, the information that you have al-

ready supplied under the same email address will appear in the form. Feel free to update this information if it is outdated. Click on the *Submit* button and your response key will appear on-screen.

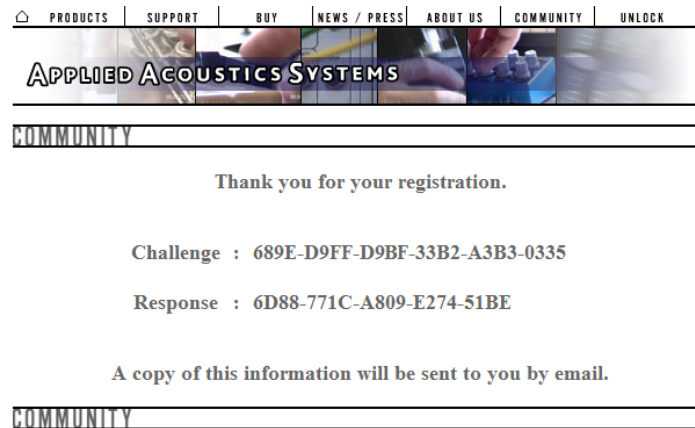


Figure 5: Generation of the response key on the A|A|S server.

If your computer is not connected to the internet, take note of your serial number and *challenge key* and proceed to an internet connected computer. Launch your browser and go to the unlock page of the A|A|S website at:

<http://www.applied-acoustics.com/unlock.htm>

Enter your email address, serial number, and challenge key, and click next. You will then receive your response code on-screen as described above.

1.3.3 Step 3: Completing the unlock process

The *response key* corresponding to your serial number and *challenge key* will be printed in your browser window. In order to complete the unlock process, copy the response key and paste it into the corresponding field of the installer window of *Ultra Analog Session*. If you obtained your response key from another computer, type the response key by hand in the installer window.

Click on the *Next* button and a pop-up window will appear informing you that the authorization process has been successful. Click on the **Finish** button to complete the process and launch *Ultra Analog Session*.

You will normally only need to go through this process once for a given computer except for some special cases. On Windows computers you will need to unlock again if:

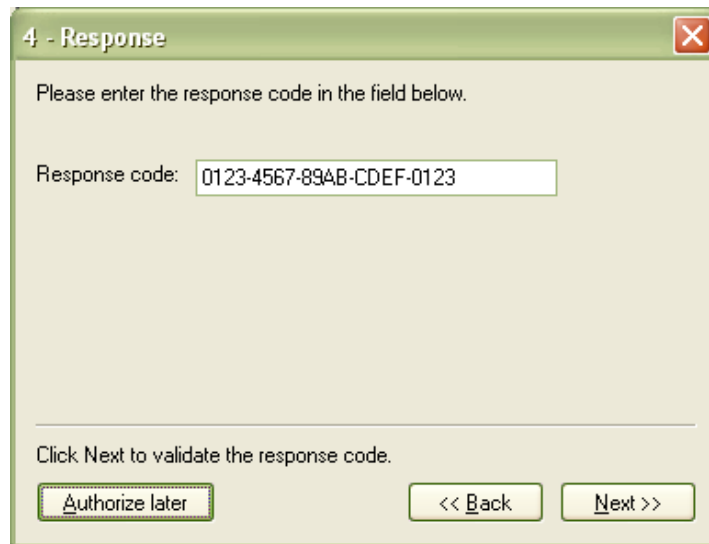


Figure 6: Final step of the unlock process. Enter your response key in the window.

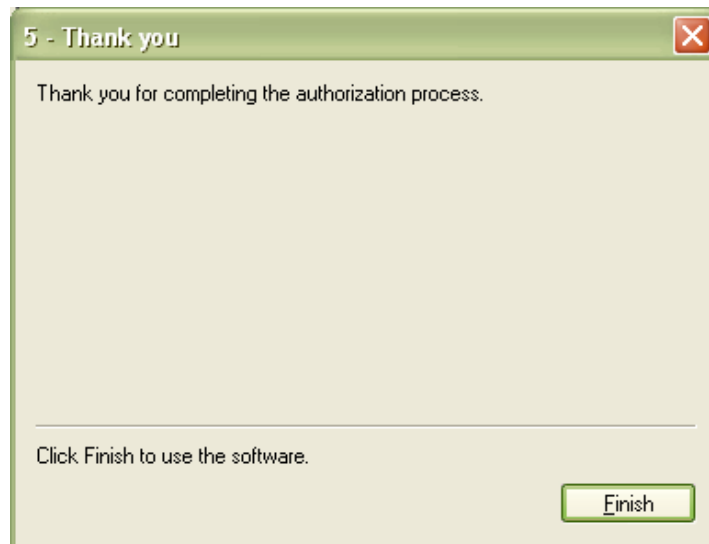


Figure 7: Authorization has been successful.

- You change your computer
- You reformat or upgrade your hard drive
- You change or upgrade your operating system

On Mac OS computers, this will only be necessary if:

- You change your computer
- You change the motherboard of the computer

1.3.4 Obtaining your response key and registering by fax or over the phone:

Should you not have access to the internet, A|A|S support representatives are available to assist you in the unlock and registration process Monday to Friday, 9am to 6pm EST. You may contact us by phone at:

- North America Toll-free number: 1-888-441-8277
- Outside North America: 1-514-871-8100
- Fax Number: 1-514-845-1875
- Email: support@applied-acoustics.com

1.4 Getting started

1.4.1 Using *Ultra Analog Session* in standalone mode

The *Ultra Analog Session* comes with a wide range of factory presets right out of the box which amounts to a huge range of sounds before you have even turned a single knob. As you would expect, the best way of coming to grips with the possibilities *Ultra Analog Session* offers is simply to go through the presets one at a time. We recommend that you first start using the *Ultra Analog Session* in standalone mode.

- **Windows** - Double-click on the *Ultra Analog Session* icon located on your desktop or select *Ultra Analog Session* from the **Start > All Programs >** menu.
- **Mac OS** - Double-click on the *Ultra Analog Session* icon located in the Applications folder.

Before you start exploring the factory presets, take a moment to set up you audio and MIDI configuration as explained below.

Audio Configuration

Audio configuration tools are available from the **Audio** menu. The **Audio Settings** function allows you to select an audio output device from a list, organized by driver type, of those available on your computer. On Windows, if you have ASIO drivers available, these should be selected for optimum performance. Multi-channel interfaces will have their outputs listed as stereo pairs.

- Select your sound card port from the list in the **Audio Configuration** dialog from the **Audio > Audio Settings ...** menu.

For more detailed information on audio configuration, sampling rate selection and latency adjustments, please refer to section 6.3.

MIDI Configuration

MIDI configuration tools are available from the **MIDI** menu.

- Select your MIDI input device from the list in the **MIDI Configuration** window available from the **MIDI > MIDI Settings ...** menu.

For more detailed information on Audio and MIDI configuration, MIDI links and MIDI maps, please refer to Chapter 6.

1.4.2 Exploring the factory presets

Factory presets can easily be accessed using the ‘+’ and ‘-’ buttons in the lower left corner of the toolbar. These buttons are used to navigate through a list of 128 numbered presets called programs. The content of this program list can be viewed by clicking on the ▼ button of the toolbar. The number of the current program used and the name of the associated preset appear on the right of this button. Programs can also be changed by using the ‘+’ and ‘-’ keys from the computer keyboard or by selecting programs directly from the list displayed after clicking on the ▼ button.

Presets can also be accessed using the browser appearing on the left of *Ultra Analog Session*. This browser is similar to the browser your operating system generates to display the contents of your hard disk, or your email program uses to organize your mail and address book. When launching the application for the first

time, this “tree view” will include a destination folder for imported presets as well as a **Library** folder. To open a folder, click on the “+” symbol on Windows or ► symbol on Mac OS which will reveal the folder content.

The preset library is different from the program list and can be viewed as a repository containing all the presets available to the application. Presets are loaded into the synthesis engine by copying them from the library into the program list. To load a preset, double-click on a preset icon (blue knob) or preset name. This will insert the preset into the program list at the position of the current program. You can also use the arrow keys on the computer keyboard in order to navigate in the preset list and then the Enter key to load a preset. For additional information on presets and programs, please refer to Chapter 2 of this manual.

1.4.3 Using MIDI Links

Every parameter on the *Ultra Analog Session* interface can be linked to an external MIDI controller. To assign a MIDI Link, right-click (control-click on Mac) on a control (knob, button or slider) and a contextual menu will appear. Select **Learn MIDI Link** and move a knob or slider on your MIDI controller to activate the link. To deactivate the link, right-click (control-click on Mac) on the control and choose the **Forget MIDI Link** command. Refer to section 6.2 for more details on MIDI links.

1.4.4 Using MIDI program changes

The synthesizer responds to MIDI program changes. When a program change is received, the current program is changed to the program having the same number as that of the program change message received by the application.

1.4.5 Using *Ultra Analog Session* as a Plug-in

The *Ultra Analog Session* integrates seamlessly into the industry’s most popular multi-track recording and sequencing environments as a virtual instrument plug-in. The *Ultra Analog Session* works as any other plug-in in these environments so we recommend that you refer to your sequencer documentation in case you have problems running the *Ultra Analog Session* as a plug-in.

1.5 Getting help

A|A|S technical support representatives are on hand from Monday to Friday, 9am to 6pm EST. Whether you have a question on *Ultra Analog Session*, or need a hand getting it up and running as a plug-in in your favorite sequencer, we are here to help. Contact us by phone, fax, or email at:

- North America Toll Free: 1-888-441-8277
- Worldwide: 1-514-871-8100
- Fax: 1-514-845-1875
- Email: support@applied-acoustics.com

Our online support pages contain downloads of the most recent product updates, and answers to frequently asked questions on all A|A|S products. The support pages are located at:

www.applied-acoustics.com/faq.htm

1.6 Forum and User Library

The A|A|S community site contains the *Ultra Analog Session* user forum, a place to meet other users and get answers to your questions. The community site also contains an exchange area where you will find presets for your A|A|S products created by other users and where you can make your own creations available to other users.

<http://community.applied-acoustics.com/php/community/>

<http://community.applied-acoustics.com/php/forum/>

1.7 About this manual

In the next chapter, the use of presets and the browser are described in detail. Chapter 3 describes the general architecture of *Ultra Analog Session*. In Chapter 4, the different modules and controls are reviewed in detail. Chapter 5 describes the different functionalities available from the toolbar while Chapter 6 explains the different functionalities related to Audio and MIDI and their settings. General issues involved in the use of *Ultra Analog Session* as a plug-in in different host sequencers is covered in Chapter 7. Finally a list of available commands and shortcuts is given in Chapter 8.

Throughout this manual, the following conventions are used:

- Bold characters are used to name modules, commands and menu names.
- Italic characters are used to name controls on the interface.
- Windows and Mac OS keyboard shortcuts are written as Windows shortcut/Mac OS shortcut.

2 Presets and MIDI maps

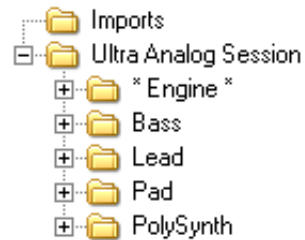
Ultra Analog Session comes with several factory presets covering a wide range of sounds. This collection of presets lets you play and familiarize yourself with this synthesizer without having to tweak a single knob. Soon, however, you will be experimenting and creating your own sounds and projects that you will need to archive or exchange with other users. You may also want to control the parameters of *Ultra Analog Session* with a specific MIDI controller. In this chapter, we will review the management of presets and MIDI maps.

2.1 Presets

There are two concepts involved in the management of presets, the preset library and programs.

2.1.1 The Preset Library

The preset library contains the factory presets, modified versions of the factory presets you might have made or any other new presets you might have saved. The library may also contain imported presets as well as MIDI maps as explained in Section 2.6 and 2.7. In other words, the preset library is a repository of all the presets and MIDI maps available to *Ultra Analog Session*.



All the operations on the preset library are conveniently managed with the help of the *Ultra Analog Session* browser, similar to those found in most email programs which use a hierarchical tree structure and a visually intuitive, drag and drop approach. To explore the different presets available in the library, open the different folders by clicking on the “+” icon Windows or ► symbol on Mac OS to the left of folders. Each preset is represented by a blue knob icon followed by its name.

2.1.2 The Program list

Presets are loaded into the synthesis engine of *Ultra Analog Session* from a list of 128 numbered presets called programs. The name of the current program and its number are displayed in the left of



the toolbar at the top of the application window. The entire list of programs can be viewed by clicking on the ▼ button left of the program number.

It is important to note that presets in the program list and in the preset library are stored in different locations. They are in fact different copies of the same presets which may, as explained below, differ even if they share the same name. The version of a preset available in the program list should be viewed as temporary or as a ‘working copy’ of the preset whereas the version in the library should be viewed as permanent or as the ‘reference version’.

When you start the application for the first time, the program list contains a selection of presets from the factory preset library. At that point, the presets in the program list are identical to their version in the library.

2.2 Playing and Changing Presets

Presets are always played from the program list. The name of the current program, in other words the one currently loaded in the synthesis engine, as well as its number are displayed in the left part of the toolbar. Its number and name are also preceded by a check mark in the program list. The current program can be changed in different ways:

- scroll up or down in the program list by clicking on the ‘+’ and ‘-’ buttons located on the left of the program name or use the ‘+’ and ‘-’ keys from the computer keyboard,
- Display the content of the program list by clicking on the ▼ button and select a program by clicking on its name.
- Use the **Switch to Program** command from the **Programs** menu and enter a specific program number. This command can also be activated by using the Ctrl-P/Apple-P keyboard shortcut.
- Send MIDI program changes from your MIDI controller. *Ultra Analog Session* will load the program having the same number as the program change number received by the application.

A Preset can also be loaded from the preset library. It is then stored in the current program replacing the preset that was already stored in this location. It then becomes immediately available to the synthesis engine. Different options are available to load a preset from the preset library into the current program:

- In the browser, double-click on a preset icon.

- Drag and drop presets from the browser onto the *Ultra Analog Session* interface.
- Select a preset by clicking on its icon and use the Enter key from the computer keyboard. Once a preset has been selected in the library, it is possible to navigate in the library using the Arrow keys from the computer keyboard. A preset is selected when its name is highlighted.
- Select a preset and use the **Open Preset** command from the **File** menu or the Ctrl-O/Apple-O keyboard shortcut.

Note that when a preset is loaded from the preset library to the list of programs, the program name displayed in the toolbar changes but not its number. This indicates that the current program number used by the synthesis engine is still the same but that the preset corresponding to that program has changed. The 128 programs can therefore be customized by selecting different program numbers (by using the ‘+’ and ‘-’ buttons from the toolbar or selecting programs from the program list) and loading presets from the library.

2.3 Editing and Saving Presets

Moving the different controls on the *Ultra Analog Session* interface modifies the preset loaded in the current program. As soon as the current program is modified, the preset icon located on the left of the program name in the toolbar changes color and a ‘*’ sign is appended to its name in the program list. In this state, the preset loaded in the current program is different from its original version stored in the preset library even if they share the same name. If you wish to keep a permanent copy of the modifications, you must save this new version in the preset library.

- To save the new version in the preset library, use the **Save Preset** command from the **File** menu or the Ctrl-S/Apple-S shortcut. Be careful, however, as using this command will overwrite the original preset. If you are not certain of which preset will be overwritten in the library, first use the **Locate Program in Browser** command from the **Programs** menu or the Ctrl-L/Apple-L shortcut in order to locate it in the browser.
- To create a new preset, use the **Save Preset As** command from the **File** menu. A window will appear asking for a name for the new preset. Once the preset is saved using this command, a new preset icon will appear in the browser directly under the **Library** folder.

- To create a new preset, it is also possible to rename the program using the **Rename Current Program** from the **MIDI** menu (or the Ctrl-R/Apple-R keyboard shortcut) and use the **Save Preset** or **Save Preset As** commands.

When editing presets, it is very helpful to go back and forth between the different stages of your modifications and adjustments. To move back step by step through every modification that was applied to a preset, use the **Undo** command from the **Edit** menu or the Ctrl-Z/Apple-Z shortcut. Once the **Undo** command has been used, it is also possible to move up again through the modifications by using the **Redo** command from the **Edit** menu or the Ctrl-Y/Apple-Y command. The number of **Undo** levels is unlimited and that this command is effective on any control of the interface but not on the different **Save** commands.

Once a preset has been modified, it is also possible to move back and forth between the current state of the preset in the program list and its original version archived in the preset library. To hear the original preset, simply click on the *Compare* button at the top of the interface or use the **Compare** command from the **Edit** menu. Once this button has been pressed, the original settings of the preset are loaded. In this mode, the graphical interface is frozen and it is therefore not possible to modify the preset. To further modify the preset, click on the *Compare* button again or uncheck the **Compare** command in the **Edit** menu to revert to the modified version of the preset and unfreeze the interface. To reload the original version, use the **Locate Preset in Browser** command from the **View** menu, or the Ctrl-L/Apple-L shortcut and double click on its icon in order to reload this version into the current program.

Ultra Analog Session will make sure that you do not lose modifications to a preset. In the case where a program holds a modified version of a preset and when trying to load a new preset from the library into this program, the application will ask you if you want to save the modified preset in the library. This behavior might not always be convenient and it is possible to deactivate it by deselecting the **Ask to save preset before opening another** option in the **Preferences** command from the **Edit** menu.

2.4 Saving the Program List

When you open *Ultra Analog Session*, the application always loads the same program list. This implies that, by default, the program list will always contain the same presets when you open the application and that your modifications to presets will be lost unless they have been saved in the preset library.

- To save the current list of programs and replace the default program list, use the **Save All Programs** command from the **Programs** menu.

This command is helpful if you wish to modify the program list or if you wish to restart the application in exactly the same state as when you left it.

Note that this operation is not necessary when using *Ultra Analog Session* as a plug-in in a host sequencer as the program list is always saved with a project. The default program list will be loaded only if a new project is started or if a new instance of *Ultra Analog Session* is opened within a project.

2.5 Organizing the Preset Library

2.5.1 Creating Folders

Sub-folders can be created by first selecting a folder by clicking on it and using the **New Folder** command from **File** menu.

2.5.2 Copying and Moving Presets and folders

Presets and folders can be copied and moved from one location to another. First select an item by clicking on its icon and use the **Copy** command from the **Edit** menu (Ctrl-C/Apple-C shortcut) in order to copy it. Then click on the destination folder and use the **Paste** command from the **Edit** menu (Ctrl-V/Apple-V shortcut) in order to paste it. Groups of items can be copied and pasted at the same time. In order to select many items at once, click on different icons while keeping the Control/Apple key depressed. Alternatively to select, within a folder, all the presets located between two presets, click on the first one and then on the second one while keeping the Shift key depressed. Once a group of items has been selected, use the **Copy** and **Paste** functions as explained above.

2.5.3 Renaming Presets and folders

On Windows systems, to rename a preset or folder, click a first time on the corresponding icon in the browser in order to select it. Then click a second time to enter in name edition mode. Note that this sequence of operation is different from double-clicking on the icon which loads the preset in the case of a preset icon or opens a folder in the case of a folder icon. In other words, there must be a pause between the two clicks.

On Mac systems, first select the item to be renamed and then use the **Rename** command from the **Edit** menu. It is also possible to ctrl-click on the selected item and then choose the **Rename** command.

2.5.4 Deleting Presets and Folders

To delete a preset or folder, first select it by clicking on its icon in the browser, then use the **Delete** command from the **Edit** menu or use the Del key from the computer keyboard. In order to select and then delete many items at once, click on different icons while keeping the Control/Apple key depressed. Alternatively to select, within a folder, all the presets located between two presets, click on the first one and then on the second one while keeping the Shift key depressed. Once the group of items has been selected, use the **Delete** function as explained above.

2.5.5 Documenting Presets

It is possible to document a preset and view related information. To view or edit information on a preset, first select it in the browser and choose the **Preset Info** command from the **Edit** menu or use the Ctrl-I/Apple-I shortcut. It is also possible to right-click/control-click on the preset icon and choose the **Preset Info** command. Information on a preset includes the author's name, copyright notice, date of creation, last modification date and a text description.

2.5.6 Locating a Preset in the Browser

It might sometimes be helpful to locate in the preset library the preset currently being played or in other words, that corresponding to the current program. To rapidly locate the current preset in the browser, use the **Locate Program in Browser** command from the **Programs** menu or the Ctrl-L/Apple-L shortcut. The **Locate** command will automatically expand the folder containing the currently used preset and select the preset.

2.5.7 Resizing the Browser

In standalone mode, the browser can be resized. In order to change the size of the browser, position the mouse cursor on the line separating the browser from the *Ultra Analog Session* control panel. When the cursor changes to a double-headed arrow, click-hold and move the mouse to the left or right as desired. In order to

hide the browser completely, move the double-headed arrow cursor fully to the left. Note that when *Ultra Analog Session* is used as a plug-in, the browser size is fixed and can not be modified.

2.6 MIDI maps

MIDI maps containing information about MIDI links between the MIDI controllers and the *Ultra Analog Session* interface can easily be created as will be explained in Section 6.2. MIDI maps are represented in the browser with a MIDI connector icon. MIDI maps are treated exactly the same way as presets in the browser and are saved using the **Save MIDI Links** or **Save MIDI Links As** commands from the **File** menu.

2.7 Exporting and Importing Presets and MIDI maps

The **Import** and **Export** commands, found in the **File** drop down menu, allow one to easily exchange presets and MIDI maps with other *Ultra Analog Session* users. This feature can also be used to decrease the number of elements in the browser by archiving older or rarely used ones elsewhere, on CD-R, or a second hard disk for example. Files containing *Ultra Analog Session* presets and MIDI maps are equivalent in size to short text file, making it easy to send presets to other users via email.

To export a folder, a group of folders, presets or MIDI maps within a folder, select the elements to export in the browser and use the **Export** command from the **File** menu. When the **Export** window appears, choose a file name and a destination location on your hard disk. *Ultra Analog Session* export files will be saved with an “lls” extension.

Importing presets and MIDI maps is just as easy. Simply click on the **Import** command from the **File** drop down menu, and select the file to import. A new folder will then appear under the **Imports** directory in the browser, containing all of the files contained within the imported package. These can then be dragged and dropped to a new folder, or remain in the Imports directory.

2.8 Backuping Presets and MIDI maps

There are basically two ways to backup your presets and MIDI maps: exportation and database backup. The database backup is more efficient when there is a large number of elements to backup.

The exportation method consists in using the **Export** command from the **File** menu as explained in section 2.7. Once you have exported the elements you wish to archive, just save the export file(s) to your usual backup location or medium.

The second backup method will enable you to archive the entire material present in the browser. The content of the browser, including presets, MIDI maps and folders is saved into a database file. This second backup method simply consists in archiving this file. The database file location is different whether you are working on a Mac OS or Windows system.

- On **Windows** systems: C:\Documents and Settings\[User]\Application Data\Applied Acoustics Systems\Ultra Analog Session 1.
- On **Mac OS** systems: [System Drive]:Users:[User]:Library:Application Support:Applied Acoustics Systems:Ultra Analog Session 1.

The name of the database file is UltraAnalogSession.tdb. In order to archive your database, just copy this file to your usual backup location or medium. In order to restore a database, replace the version of the UltraAnalogSession.tdb file with a previously archived one. It is also possible to synchronize different systems by copying this file on different computers where *Ultra Analog Session* is installed.

2.9 Restoring the Factory Presets and MIDI Links

If necessary, it is possible to restore the original factory library and program list by using the **Restore Factory Library** from the **File** menu. This operation makes a backup of your current database file in the preset database folder as explained in Section 2.8 and creates a new preset database containing only the factory presets and MIDI maps. The next time you open *Ultra Analog Session*, both the browser and the program list will be in exactly the same state as when you first installed the application.

Note that restoring the factory library should be done with caution as you will lose all the work you might have saved into the library and that this operation can not be undone easily. If you wish to recuperate a certain number of presets and MIDI maps after restoring the factory library, we recommend that you first export all the material you wish to keep using the **Export** command as explained in Section 2.7. After re-installation of the factory library, you will easily be able to re-import this material using the **Import** command.

If you forgot to export material before restoring the factory library or if you wish to bring back the preset library to its state before restoring the factory library,

it is still possible to recover material from the backup file of the preset database which was created automatically when restoring the factory library as explained in Section 2.8. This method should be considered as a last resort, however, as recovering material from this backup file will remove the factory library which you have just installed and force you to redo the operation. Using the Export command before restoring the factory library is much simpler.

Note that the restore of the factory library is actually performed the next time you re-open the application. It is still possible to cancel this operation before exiting the application by using the **Cancel Library Restore** command from the **File** menu.

3 Architecture of the *Ultra Analog Session*

The *Ultra Analog Session* is based on *Ultra Analog VA*, a very adaptable and versatile synthesizer. Different configurations of this engine have been chosen in order to cover the following categories of sound: basses, leads, pads and poly synths. Five factory presets have been designed for each of these categories and saved into the **Engine** factory folder of the browser. Each of these base sound can then be modified with the different oscillator, filter and envelope module controls. In addition, a comprehensive output effect section is included for further shaping of the tone of the instrument. The different settings of these modules and the output effect section are discussed in more details in the next section.



Figure 8: Graphical user interface of the *Ultra Analog Session* Synthesizer.

4 Parameters

4.1 General Functioning of the Interface

4.1.1 Tweaking Knobs

All the knobs on the interface are selected by clicking on them. Once selected, they can be controlled in different ways depending on the effect you want to achieve.

- For coarse adjustment click-hold on a knob and drag the mouse upwards or downwards to move it clockwise or counter-clockwise.
- For fine adjustment, use the left or down arrow of the computer keyboard to move the knob counterclockwise and the right or up arrow to move it clockwise. The **Page Up** and **Page Down** keys give the same result with slightly faster action. Note that this may not work in certain plug-in formats.
- To move a control to a given position, place the mouse at this position and Shift-click/Option-click. To reach this position slowly, do the same, but use the middle button of the mouse (Windows only).
- Knobs with a green LED above can be moved directly to their center position by clicking on the LED.

Remember that the keyboard shortcuts affect only the most recently selected control. The value of the control currently selected is displayed on the toolbar at the top of the *Ultra Analog Session* window. The number displayed on the counter is a value corresponding to the setting of the control currently selected.

4.1.2 Buttons

Buttons are switched *on* or *off* by clicking on them. The value appearing in the toolbar when a button is selected represents the state associated with the position of the button.

4.1.3 Drop-down menus and Displays

Clicking on a display with a small down-pointing triangle on its right, such as in the **Reverb** module, reveals a drop-down menu with a set of possible settings for the control. Adjustment of the control is obtained by clicking on a selection or using the up and down arrows and the **Enter** key of the computer keyboard.

4.2 The Engine Module

The **Engine** module is used to display the selected engine. The different types of sounds produced by the engines have been divided in the following categories: basses, leads, pads and poly synths. Each of these factory preset is saved in the **Engine** folder appearing in the browser. The different engines can be viewed by clicking on the *View Engines* button appearing on this module. One can switch from one engine to the other by double-clicking on the associated icon in the browser as for any other preset appearing in the browser.



4.3 The Keyboard Module

The **Keyboard** module controls how the synthesizer voices respond to the events coming from an external MIDI keyboard or from a MIDI sequencer.

The reference pitch of the keyboard can be adjusted using the *Tune* knob. When in its center position (green LED *on*), the reference note of the keyboard is A4 set at 440 Hz. Turning this knob counter-clockwise will lower the pitch of this reference note while turning it to the clockwise will increase it. The maximum increase or decrease of the pitch of the keyboard is one semi-tone. Note that the *Tune* knob can be set directly to its center position by clicking on the green LED. Also, tuning is treated as a global parameter and is therefore not saved with a preset.



The keyboard can be monophonic, allowing one to play only one note at a time, or polyphonic, allowing one to play chords. This behavior is adjusted by switching *on* or *off* the *Mono* button. In *Mono* mode, the keyboard follows a last-note-played priority.

A portamento effect can be added when the **Keyboard** module is in *Mono* mode. Portamento is used to make the pitch slide between notes instead of changing by step when a new note is played. The *Glide* knob controls the time during which the pitch glides between notes. The portamento effect is present only when the keyboard is played legato, this means that portamento will only occur between two notes if the second note is played before the first one is released.

Note that the sustain pedal (MIDI controller number 64) is always active on the **Keyboard** module.

4.4 The Osc Module

Depending on the sound engine used, *Ultra Analog Session* uses one or two oscillators. In the case where one oscillator is used, the *Detune* knob of the **Osc** module is used to change the frequency of the output signal from the oscillator. In the case where two oscillators are used, the *Detune* knob is used to change the frequency of the second oscillator relative to that of the first oscillator. This is useful to make the sound richer.



Depending again on the engine used, the second knob of the **Osc** module will be labeled *Sub* or *Ratio* and control the amount of sub oscillator signal or a hard synchronization mode of the oscillators. In sub-oscillator mode, a second signal, one octave lower than the pitch of the oscillator, is generated and added to the original signal of the oscillator resulting in a richer sound. The amount of sub-oscillator signal added to the original signal is controlled with the *Sub* knob. When in its leftmost position, the sub-oscillator is muted and turning this knob clockwise increases the amount of sub-signal.

The *sync* mode refers to the possibility of resetting, or in other words restart, the signal of the oscillator at each cycle of a synchronization signal. In this mode, the frequency of the clock is that of the oscillator and the frequency of the oscillator signal is varied. The perceived pitch is that of the original oscillator signal but the harmonic content of the signal is modified by the synchronization operation. The ratio between the frequency of the oscillator and the synchronization frequency is controlled with the *Ratio* knob. When in its leftmost position the synchronized signal has the same frequency as that of the clock and turning this knob clockwise increases this frequency.

4.5 The Filter Module

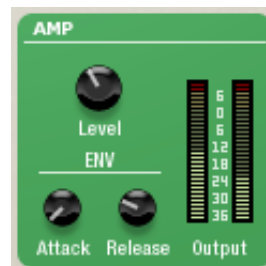
Depending on the sound engine used, a low-pass, high-pass or bandpass filter is applied to the signal from the oscillator. The behavior of this filter is controlled with the **Filter** module. The *Cutoff* knob is used to control the cutoff frequency of the filter while the *Q* knob is used to control its resonance. The cutoff frequency of the filter can further be modulated by an envelope signal controlled from the **Env** section of the module. When playing a note, the cutoff frequency of the filter will move from the value determined by the settings of the *Cutoff* knob, and come back to its this original



position following an envelope signal. The *Attack* knob is used to control the speed of this motion while the *Amount* knob is used to determine the amount of deviation.

4.6 The Amp Module

The **Amp** module is an amplifier used to control the volume of the output signal of the synthesizer. The general level of the output signal is determined using the Level knob. In its leftmost position, the output signal is muted and turning this knob clockwise increases the volume. The level of the stereo outputs from the synthesizer can be monitored with two level meters on the right of the module. The output can further be modulated by an envelope signal, the *Attack* and *Release* knobs are used to control the attack and releases phases of this envelope.



4.7 The Output Effect Stage



The output effect stage is located at the top row of the *Ultra Analog*. This effect stage allows one to add effects to the sound and record performances on the fly.

4.7.1 The Chorus Module

This module implements both a chorus and a flange effect. It consists of four variable delay lines in parallel with a cross-feedback matrix between the lines. A wide range of effects is obtained by modulating the length of the lines and varying the amount of cross-feedback.

The *Chorus* drop down menu is used to choose between different chorus and flanger algorithms. The effect can be synchronized to the **Clock** module with the *Sync* drop-down menu. Sync values range from 1/8 of a quarter note (a thirty-second note) to 16 quarter notes (4 whole notes) where the duration of the whole

note is determined by the value (in BPM) appearing in the *Tempo* display of the **Clock** module. The effect can also be synced to a triplet (t) or dotted note (d).

The different chorus algorithms can be controlled with the three knobs appearing at the bottom of the module. The *Mix* knob is used to adjust the ratio of “dry” and “wet” in the output signal of the module. When the knob is adjusted in the left position, only the original or “dry” signal is sent to the output while in the right position only the processed or “wet” signal is sent to the output. In its center position there will be equal amounts of “dry” and “wet” signal in the output signal. The *Depth* knob is used to adjust the amount of variation of length in the delay lines which controls the amplitude of the effect while the *Rate* knob is used to fix the frequency of the modulation.

4.7.2 The Delay Module

This module is a standard ping pong delay which is used to generate echo. It is based on two delay lines each including a low-pass filter. The effect is obtained by feeding back the signal at the end of each delay line into the input of the other line with an attenuation coefficient. The result is a signal traveling from one channel to the other, each time attenuated and filtered in the high frequencies due to the gain factor and the presence of the low-pass filter.

The different delay algorithms can be controlled with the three knobs appearing at the bottom of the module. The *Mix* knob is used to adjust the ratio of “dry” and “wet” in the output signal of the module. When the knob is adjusted in the left position, only the original or “dry” signal is sent to the output while in the right position only the processed or “wet” signal is sent to the output. In its center position there is in equal amounts of “dry” and “wet” signal in the output signal. The *Depth* knob is used to adjust the amount of signal re-injected from the output of a line into the other one while the *Rate* knob controls the length of the delay lines and therefore the delay between echoes.

4.7.3 The Reverb module

The **Reverb** module is used to recreate the effect of reflections of sound on the walls of a room or hall. These reflections add space to the sound and make it warmer, deeper, as well as more realistic since we always listen to instruments in a room and thus with a room effect.

The *Reverb* drop down menu is used to choose between different reverb algorithms representing different types of rooms or halls. Each algorithm can be

adjusted with the knobs located at the bottom of the module. The *Mix* knob is used to set the relative amount of “dry” and “wet” signal which is related to the proximity of the sound source. The *Decay* is used to control the reverberation time of the room. In a real room, the reverberation time is not constant across the whole frequency range because the walls of the hall are generally more absorbent at high frequencies which results in a shorter reverberation time for these frequencies. This effect is controlled with the *Color* knob which sets the reverberation time of high frequencies relatively to the value of the *Decay* knob.

4.7.4 Topology

The three effects of the output section can be used in four different configurations as shown in Figure 9 and where the **Chorus**, **Delay** and **Reverb** modules are labeled **A**, **B**, and **C** respectively.

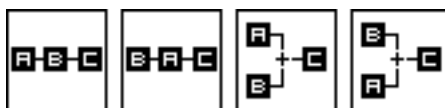


Figure 9: The four topologies in which the effects can be applied after the **Amp** module of the two module rows; **A** = **Chorus** module, **B** = **Delay** module and **C** = **Reverb** module.

In the first two configurations, the left and right channels of both source lines are mixed before being sent to the output stage. In the first configuration, the **Chorus** module is first applied, then the **Delay** and finally the **Reverb** module. In the second configuration, the signal is first processed by the **Delay**, then by the **Chorus** and the **Reverb** module. In the third and fourth configurations, a different effect is applied after the **Amp** module at the end of the two module rows, mixing occurs and the resulting signal is fed to the **Reverb** module. The third and fourth layouts refer to different configurations of the original *Ultra Analog* engine in which the Chorus and Delay modules are applied to the signal path in reversed order.

Note that each of the effects can be muted by selecting the *Bypass* preset in its respective algorithm selection drop down menu.

4.7.5 The Output Module

This module is used to monitor levels of the left and right channels. The overall level is adjusted with the *Level* knob. The best dynamic range is obtained when the level meters are around 0 dB for loud sounds.

5 Toolbar

The toolbar at the top of the *Ultra Analog Session* interface allows you to monitor important information related to your current set-up.



5.1 Program Display

Displays the number and name of the program currently loaded in the synthesis engine. The + and – buttons on the left of the program number, or alternatively the + and – keys on the computer keyboard, are used to navigate upwards and downwards in the program list. The complete list of 128 programs can be viewed by using the ▼ button located on the left of the program number. When the preset associated with the current program is different from the version saved in the preset library, the preset icon to the left of the buttons changes color in order to indicate that saving is necessary in order not to lose the changes that have been applied.

5.2 MIDI map

Displays the name of the currently opened MIDI map. For more information on MIDI maps, please refer to Section 6.2.

5.3 CPU meter

Displays the percentage of the total CPU resources currently used by *Ultra Analog Session*.

5.4 Value Display

Displays the value of the currently selected control on the interface. The values range from 0 to 127 for knobs and 0 or 1 for buttons depending on whether they are in their *on* or *off* position. For some controls, the value is displayed in the appropriate units.

6 Audio and MIDI Settings

This chapter explains how to select the audio and MIDI devices used by *Ultra Analog Session* as well as how to create and edit MIDI links and MIDI maps. When referring to commands that are different on Windows and Mac OS systems, the commands are listed in the following order: Windows command/Mac OS command.

6.1 Audio Settings

6.1.1 Selecting a Audio Device

To select the audio device used by *Ultra Analog Session*:

- Go to the **Audio** menu and choose the **Audio Settings** options. A list of the audio devices installed on your computer will appear in the **Audio Configuration** window.
- Click on the audio device you wish to use and click on the **OK** button.

6.1.2 Audio Control Panel

To launch the audio configuration panel, choose **Audio Control Panel** under the **Audio** menu. This command allows you to select the bit depth sample rate (22.05, 44.1, 48, or 96 kHz) and buffer size, which affects how quickly *Ultra Analog Session* responds to the control information it receives. The smaller the buffer size, the shorter the latency, and vice versa.

On Windows systems using ASIO drivers, this command opens the control panel provided with the driver and the content of the dialog depends on the driver. Some sound cards also require that you close all programs before making changes to the buffer size or sampling rate. If you discover this is the case with your sound card, please refer to the manufacturer's documentation for details on configuring it for optimum performance. Most sound card manufacturers also update their drivers regularly. It is strongly recommended that you visit your sound card manufacturer's website regularly to ensure you are using the most up to date drivers and support software.

On Mac OS systems, this command launches the **Audio MIDI Setup** configuration application.

6.2 MIDI Settings

6.2.1 Selecting a MIDI Device

To select the MIDI device used by *Ultra Analog Session*:

- Go to the **MIDI** menu and choose the **MIDI Settings** option. A list of the MIDI devices installed on your computer will appear in the **MIDI Configuration** window.
- Select the MIDI device you want to use and click on the **OK** button.

6.2.2 Creating MIDI Links

Every control on the *Ultra Analog Session* interface can be manipulated by an external MIDI controller. In most cases this is much more convenient than using the mouse, especially if you want to move many controllers at once. For example, you can map the motion of a knob on the interface to a real knob on a knob box or to the modulation wheel from your keyboard. As you use the specified MIDI controllers, you will see the controls move on the *Ultra Analog Session* interface just as if you had used the mouse.

To assign a MIDI link to a controller:

- On the interface, right-click/Control-click on a control (knob, button), a contextual menu appears. Select **Learn MIDI Link**.
- Move a knob or slider on your MIDI controller (this can be a keyboard, a knob box, or any device that sends MIDI). This will link the control of the *Ultra Analog Session* to the MIDI controller you just moved.

MIDI links can also be created by right-clicking/Control-clicking on a control and choosing the **Add MIDI Link** command which will open the **Add MIDI Link** window.

6.2.3 Editing MIDI Links

MIDI links can be edited in the MIDI Links window, which lists all the currently available MIDI links.

- To edit the MIDI link, right-click/Control-click again on the control and choose **Edit MIDI Link** to open the MIDI links window. You can also use the **Edit MIDI Link** command from the **MIDI** menu.
- Click on the MIDI link you wish to modify and then on the **Edit** button to launch the **EDIT MIDI Link** window.
- Specify the MIDI controller number and MIDI channel of the physical controller you wish to link to the parameter in the corresponding drop-down menus.
- You can also adjust the **Minimum Value** and **Maximum Value** of the controller, which are used to limit the range of MIDI controllers. The **Minimum Value** slider is used to determine the position on the *Ultra Analog Session* control which corresponds to the minimum value sent by the MIDI controller; the **Maximum Value** slider determines the position which corresponds to the maximum value sent by the MIDI controller. The leftmost position of the slider corresponds to the *Ultra Analog Session* control minimum position (left position for a knob) while the rightmost position of the slider corresponds to the *Ultra Analog Session* control maximum position (right position for a knob).
- Note that the range of a knob can be inverted by setting the value of **Maximum Value** to a smaller value than that of **Minimum Value**.
- Click on the **OK** button and the link appears in the list of controllers linked to the control.
- Click on the **OK** button again to confirm the change and to leave the MIDI Links window.
- Note that the **Minimum Value** and **Maximum Value** of a MIDI link can also be set by right/control clicking on the corresponding control and selecting the **Set MIDI Link Minimum Value** or **Set MIDI Link Maximum Value** command. The value corresponding to the control position will then be saved as the minimum or maximum value of the MIDI link.

6.2.4 Deleting MIDI Links

- To remove a MIDI link, right-click/Control-click again on the control and choose **Forget MIDI Link** or choose the **Forget MIDI Link** command from the **MIDI** menu.

- MIDI links can also be removed from the MIDI Links window by clicking on the MIDI link to be removed to select it, then by clicking on the **Remove** button and the **OK** button to confirm the change.

6.2.5 Creating a MIDI Map

A set of MIDI links can be saved into a MIDI map by using the **Save MIDI Link As** from the **File** menu. Different MIDI maps corresponding to different MIDI controllers can thereby be saved for *Ultra Analog Session*. A MIDI map can be loaded by double clicking on the corresponding MIDI connector icon that appears in the browser when a MIDI map is saved. Furthermore a MIDI map can be loaded automatically when an instrument is launched.

- To assign a default MIDI map, right-click/Control-click on the MIDI map icon and choose the **MIDI Link Info** command. In the **Edit Information Window**, select the **Set as default MIDI Links** option.

6.2.6 Default MIDI Map

It is possible to define a default MIDI map which is automatically loaded when *Ultra Analog Session* is launched.

- To define a default MIDI map, first select a MIDI map by clicking on its icon in the browser and choose the **MIDI Link Info** command from the **Edit** or the Ctrl-I/Apple-I keyboard shortcut. One can also right-click/control-click on the MIDI map icon and choose the **MIDI Link Info** command.
- To change the default MIDI map select the **Mark As Default** option.

6.2.7 MIDI Program Changes

MIDI program changes can be used to switch between programs while playing. *Ultra Analog Session* will change the number of the current program used by the synthesis engine to the number corresponding to the MIDI program change received by the application.

6.3 Latency Settings

The latency is the time delay between the moment you send a control signal to your computer (for example when you hit a key on your MIDI keyboard) and the moment when you hear the effect. Roughly, the latency will be equal to the duration of the buffers used by the application and the sound card to play audio and MIDI. To calculate the total time required to play a buffer, just divide the number of samples per buffer by the sampling frequency. For example, 256 samples played at 48 kHz represent a time of 5.3 ms. Doubling the number of samples and keeping the sampling frequency constant will double this time while changing the sampling frequency to 96 kHz and keeping the buffer size constant will reduce the latency to 2.7 ms.

It is of course desirable to have as little latency as possible. *Ultra Analog Session* however requires a certain amount of time to be able to calculate sound samples in a continuous manner. This time depends on the power of your computer, the preset played, the sampling rate, and the number of voices of polyphony used. Note that it will literally take twice as much CPU power to process audio at a sampling rate of 96 kHz as it would to process the same data at 48 kHz, simply because you need to calculate twice as many samples in the same amount of time.

Depending on your machine you should choose, for a given sampling frequency, the smallest buffer size that allows you to keep real-time for a reasonable number of voices of polyphony. To adjust these parameters:

- Launch the **Audio Control Panel**
- Choose the sampling frequency and the audio format (16, 24, 32 bits)
- Adjust the buffer size

Note that this might not be possible on Mac OS or with ASIO drivers on Windows.

In order to optimize the resources allocated to the calculation of audio by *Ultra Analog Session*, it is possible to decrease the ratio of resources devoted to the calculation of graphics for the interface in favor of audio related calculations. To adjust this ratio, choose the **Preferences** command under the **Edit** menu and adjust the *Performance* slider to the desired value between **better audio performance** and **smoother graphics**. This setting may have little noticeable effect on recent computers.

7 Using the *Ultra Analog Session* as a Plug-In

Ultra Analog Session is available in VST, DXi, AudioUnit and RTAS (for Mac OS only) formats and integrates seamlessly into the industry most popular multi-track recording and sequencing environments as a virtual instrument plug-in. The plug-in versions will work exactly the same way as the standalone version, except for the audio, MIDI, and latency configurations that will be taken care of by the host sequencer. Furthermore *Ultra Analog Session* works as any other plug-in in these environments so we recommend that you refer to your sequencer documentation in case you have problems running *Ultra Analog Session* as a plug-in. We review here some general points to keep in mind when using a plug-in version of *Ultra Analog Session*.

7.1 Window Size

The size of the *Ultra Analog Session* window is fixed when it is used as a plug-in.

7.2 Audio and MIDI parameters

When *Ultra Analog Session* is used as a plug-in, the audio and MIDI ports, sampling rate, buffer size, and audio format are determined by the host sequencer.

7.3 Automation

Ultra Analog Session supports automation functions of host sequencers. Automation can usually be done by using MIDI links and recording MIDI events, or by recording the motion of controls on the interface.

7.4 Multiple Instances

Multiple instances of *Ultra Analog Session* can be launched simultaneously in a host sequencer.

7.5 Saving Projects

When saving a project in a host sequencer, the program list is saved with the project in order to make sure that the instrument will be in the same state as when you

saved the project when you re-open it even if the preset library of the instrument was modified. MIDI links are also saved.

Note that the default program list (the same as that loaded in standalone mode) appears when *Ultra Analog Session* is opened in a new project or if a new instance of the plug-in is opened in an existing project. To change the default program list, use the **Save All Programs** command from the **Programs** menu in an instance of the instrument which displays the desired program list.

7.6 MIDI channel

Make sure that the MIDI controller, sequencer and *Ultra Analog Session* all use the same MIDI channel. If you are not certain of the channel used by your controller or sequencer, set the MIDI channel of *Ultra Analog Session* to *Omni*.

7.7 MIDI program change

MIDI program changes are supported in the plug-in versions of *Ultra Analog Session*. When a MIDI program change is received by the application, the current program used by the synthesis engine is changed to that having the same number as that of the MIDI program change message.

7.8 Performance

Using a plug-in in a host sequencer requires CPU processing for both applications. The load on the CPU is even higher when multiple instances of a plug-in or numerous different plug-ins are used. To decrease CPU usage, remember that you can use the **freeze** or **bounce to track** functions of the host sequencer in order to render to audio the part played by a plug-in instead of recalculating it every time it is played.

8 Quick reference to commands and shortcuts

File Menu

Command	Windows	Mac OS	Description
New Folder...		Apple+Shift+N	New Folder in the Browser
Open Preset	Ctrl+O	Apple+Option+O	Open the selected preset
Save Preset	Ctrl+S	Apple+S	Save the current preset
Save Preset As...			Save the current preset under a new name
Save MIDI Links	Ctrl+Shift+S	Apple+Shift+S	Save the current MIDI links
Save MIDI Links As...			Save the current MIDI links under a new name
Import...			Import a .lts file
Export...			Export a .lts file
Restore Factory Library ...			Restore factory library and programs. Everything else in the browser is deleted.
Exit (Quit on Mac)			Quit the application

Edit Menu

Command	Windows	Mac OS	Description
Undo	Ctrl+Z	Apple+Z	Undo last command
Redo	Ctrl+Y	Apple+Shift+Z	Redo last command
Copy	Ctrl+C	Apple+C	Copy selected item
Paste	Ctrl+V	Apple+V	Paste
Delete	Del		Delete selected item
Info...	Ctrl-I	Apple+I	Edit information about a selected item (browser)
Compare			Compare modified preset with original settings
Preferences			Display the Edit General Preferences window

Audio

Command	Windows	Mac OS	Description
Audio Settings			Display the Audio Settings window
Audio Control Panel			Display the Latency Settings window if DirectSound is used, the ASIO control panel when ASIO drivers are used and the Audi MIDI setup configuration tool on Mac OS systems

MIDI

Command	Windows	Mac OS	Description
MIDI Settings			Display the MIDI Settings window
Learn MIDILink			MIDI link learn mode for the last control touched
Add MIDI Link			Enables one to add a MIDI link on the last controlled touched
Forget MIDILink			Drop a MIDI link
Set MIDI Link Minimum Value			Limit the value of a MIDI link to a minimum value
Set MIDI Link Maximum Value			Limit the value of a MIDI link to a maximum value
Edit MIDILinks			Display the Edit MIDI links window
Edit Program Changes...			Associate presets with MIDI program changes
All Notes Off			Send an all note off signal

Programs Menu

Command	Windows	Mac OS	Description
Locate Program in Browser	Ctrl-L	Apple-L	Locate the current program in the browser and select it
Rename Program	Ctrl-R	Apple-R	Rename the current program in the program list
Switch to Program	Ctrl-P	Apple-P	Change the current program
Save All Programs			Save the entire program list including modifications to programs. The list will be in exactly the same state the next time you open the application

Help Menu

Command	Windows	Mac OS	Description
About Ultra Analog Session ...			Display the About Ultra Analog Session window
User Manual	F1		Display the user manual
Authorize Ultra Analog Session ...			Display the Authorization window. Active only if the application has not been authorized.
Visit www.applied-acoustics.com ...			Launch the browser and go to the AAS website.
Join the user forum ...			Launch the browser and go to the AAS forum.
Get support ...			Launch the browser and go to the support section of the AAS website.
Upgrade to Ultra Analog VA ...			Launch the browser and go to the Ultra Analog VA upgrade section of the AAS website.

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