The Complete
User Guide to

MacGAMUT *6*

for Mac <u>and</u> Windows

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Contents:

For a Quick Start

If you just want to get started quickly with MacGAMUT, you really don't need to read all of the **User Guide** now. If you are a new MacGAMUT user, you may want to start by reading the **Step 1: Getting Your startMG6.mgs File** and **Step 2: Installing MacGAMUT from the MacGAMUT *6* CD** sections of this **Guide**. If you're a ***MacGAMUT 2003*** user who is upgrading to **MacGAMUT *6***, start by reading the upgrade info sections in the **Step 1: Getting Your startMG6.mgs File** section of this **Guide**.

Introduction

Note: Throughout this **User Guide**, when it is necessary to describe differences among the program components, *Intervals, Scales, and Chords* will be referred to simply as ISC. If distinctions need to be made among Aural, Written, and Keyboard Intervals, Scales, and Chords components, those will be referred to as Aural ISC, Written ISC, and Keyboard ISC. Similarly, *Rhythmic Dictation* will be referred to as RD, *Melodic Dictation* will be referred to as MD, and *Harmonic Dictation* will be referred to as HD. If no program component is specifically identified, you may assume that the information applies equally to all MacGAMUT components. Also, most of the **User Guide** information is the same for both the Windows and the Macintosh versions, but watch for the occasional platform-specific designations.

MacGAMUT *6* includes several different kinds of drills and exercises. *Intervals, Scales, and Chords* (Aural ISC) provides aural-training drill and practice in the musical relationships of pitches, emphasizing both aural identification and notation skills. *Written Intervals, Scales, and Chords* (Written ISC) focuses on notation skills, while *Keyboard Intervals, Scales, and Chords* (Keyboard ISC) requires users to enter their responses from a MIDI keyboard. *Rhythmic Dictation* (RD) offers unlimited drill and practice in notating rhythm patterns and exercises from dictation in a variety of meters. *Melodic Dictation* (MD) offers unlimited opportunity for developing the ability to perceive and notate melodies, from the simplest to the most complex. *Harmonic Dictation* (HD) provides unlimited practice in identifying and notating chorale-style progressions of four-voice chords. In addition, "Make My Own" Aural, Written, and Keyboard ISC drills provide for targeted, self-directed drill and practice in aurally identifying, notating, and playing Intervals, Scales, and Chords.

MacGAMUT was originally designed for use as part of the required coursework in university-level music courses devoted to developing Aural Skills. With the

release of **MacGAMUT** *6*, the addition of mastery-based Written and Keyboard drills in Intervals, Scales, and Chords makes MacGAMUT an even more valuable resource for Rudiments and beginning Music Theory courses. Given the no-nonsense pedagogical design of the software and the many options which permit instructors to adapt the program to the requirements of any course or curriculum, students enrolled in formal music courses will certainly continue to be the largest group of users. But, whether enrolled in courses or not, any musician or aspiring musician interested in improving the vital linkages between the ear and music notation, as well as learning basic music notation and music theory keyboard skills, can profit from the concentrated drill and practice MacGAMUT offers.

In the aural-training drills, you may use the mouse to notate what you hear, or—if a MIDI keyboard is available and your instructor allows this option—you may play your responses on the keyboard, and the computer will notate what you play. If your instructor has changed the presets so that notation is not required in the ISC and HD aural-training exercises, you need enter only the correct identification of the interval, scale, chord, or harmonic progression to have your answer judged correct. In that case, if you choose to enter notation even though it is not required, MacGAMUT will calculate your score only on the identification, though it will still mark errors in your notation and give you helpful feedback. As might be expected, you must always enter on-screen notation in the Written ISC exercises, and you must always play your entry in the Keyboard ISC exercises. When you are working on an aural-training exercise, whether you notate the pitches on the screen or use MIDI entry, you can always edit your on-screen notation as much as you want before having your answer checked. In the Keyboard ISC exercises, you can make as many MIDI entries as necessary before you have your answer checked.

When you work in Practice Mode, many of the software's presets are temporarily disabled, allowing you the freedom to experiment with various ways of learning the material. Disabling the presets in Practice Mode will not alter the settings in Regular Mode. You can, therefore, always return to Regular Mode to test your skills against the standard your instructor has set or (if you have no instructor or if your instructor has chosen not to alter the presets) against the same rigorous standard which challenges thousands of MacGAMUT users throughout the world.

If you find that you are having difficulty distinguishing aurally or notating or playing particular pairs or collections of intervals, scales, or chords, you have the option of creating your own drills in ISC. Using Make My Own Drill, you can select the specific combinations of intervals, scales, or chords you want extra drill on, providing intensive work on those intervals, scales, or chords you consistently confuse. In Written and Keyboard Intervals, you can also choose to drill on a single interval at a time.

For the ISC exercises, it is assumed you know how to notate and identify simple and compound intervals, scales (major, minor, modal, pentatonic, whole tone, octatonic, etc.), and chords (triads and the most common 7th chords) in written work. The goal is to help you learn not only to accurately identify what you hear, but also to reinforce the connection between aural identification and the corresponding visual representation in standard music notation. Instructors who wish to reinforce aural skills with reference to a keyboard may choose to permit MIDI input as an optional means of response to some or all of the Aural exercises, while MIDI input is the required response to the Keyboard exercises. The Written exercises help you master basic music theory notation skills.

In the HD exercises, it is assumed that you are familiar with the harmonic analysis symbols commonly used to label chords in harmonic progressions. The harmonic analysis symbols used in MacGAMUT follow the convention of using upper-case Roman numerals for major chords and lower-case Roman numerals for minor chords to identify chord quality (for instance, using i rather than I to distinguish a minor tonic chord from a major tonic chord) and chord function (using a V/V rather than a II to label a secondary dominant).

Hardware and System Requirements

MacGAMUT *6* software has been designed for use with all Windows computers running Windows 98 or higher, and for all Macintosh computers running System 10.3 or higher. The computer must have a CD or DVD drive. For the Keyboard ISC drills, a MIDI keyboard must be connected to the computer.

Step 1: Installing MacGAMUT from the MacGAMUT CD

Though you must have your **startMG6.mgs** file before you can use MacGAMUT, you can go ahead and install the program as soon as you have your CD. If you've already installed MacGAMUT before registering your software, you can take advantage of the direct link to the update installers if you are notified in the registration process that updates are available.

Windows Installation: To install MacGAMUT, put your **MacGAMUT *6*** CD in the CD-ROM drive, and wait for your computer to recognize it. From your computer's desktop or **Start** menu, double-click **My Computer**. Double-click the **MacGAMUT *6*** CD to open it. Double-click the **MacGAMUT Installer Folder** to open it; then double-click **setup.exe** (the setup icon that looks like tiny white sailboats on a blue sea), and follow the instructions. If you are installing

MacGAMUT *6* for the first time, you will need to restart your computer after the installation process is finished. After you have installed MacGAMUT onto your hard drive, you can start the program by double-clicking your **startMG6.mgs** file (or your **start2003.mgs** file, if you are upgrading from *MacGAMUT 2003*). Alternatively, you can access it from the Windows **Start** menu: select **All Programs**, then the **MacGAMUT 6** folder, then the **MacGAMUT 6** application.

Macintosh Installation: To install MacGAMUT, put your **MacGAMUT *6*** CD in the CD-ROM drive, and wait for it to appear on your computer's desktop. Double-click the **MacGAMUT *6*** CD to open it. Double-click the **MacGAMUT Installer Folder** to open it. Then double-click the **MacGAMUT 6 Installer**, and follow the instructions.   After you have installed MacGAMUT onto your hard drive, you can start the program either by double-clicking the **MacGAMUT 6** icon in the **MacGAMUT 6** folder in your computer's **Applications** folder, or by double-clicking your **startMG6.mgs** file. If double-clicking your **startMG6.mgs** file does not start **MacGAMUT *6*** the first time you try it, the problem is easy to fix. Just right-click (or Control-click) on your **startMG6.mgs** file, and select Get Info. Click on the Open with arrow to make it point downward, and then select **MacGAMUT *6*** from the list of applications in the popup menu. Click the **Change All** button, and from then on, double-clicking any **.mgs** file will always open **MacGAMUT *6***.

Step 2: Getting Your **startMG6.mgs** File

If you are a new MacGAMUT user: You must download your own personal **startMG6.mgs** file before you can begin using **MacGAMUT *6***. Start from the MacGAMUT website at **www.macgamut.com** and click on the link for the **Register your software** section. You will be required to enter your name, e-mail address, and the unique Registration Number printed on your **MacGAMUT *6*** CD-ROM. Make sure you enter your name correctly, because this name will be forever linked to your **startMG6.mgs** file, and you will not be able to change it after you have completed registration.

Once you have completed the registration process, please read the important info included on the confirmation page and in the e-mail that accompanies your **startMG6.mgs** file. For example, if an update is available for MacGAMUT, there will be a link to the Update page where you can download and install the latest MacGAMUT update. Even if you are not registering on your own computer, you can still download and save the Update installer so that you can install it on your own computer as soon as possible. Keep in mind that if you keep your MacGAMUT

software up to date, you're much less likely to run into possible bugs in the software!

Since your **startMG6.mgs** file will be sent to you as an attachment to an e-mail message, be sure to enter a working e-mail address *that can receive e-mail attachments*. The file you receive will be named [**your registered name**] **startMG6.mgs**, and you will find it wherever your computer is set to receive and store attachments. If you are not sure where to look for attachments on your computer, you can always use **Search** (Start key+F) on Windows or **Find** (Command+F) on Macintosh to search for your **startMG6.mgs** file by name. If your e-mail program or internet service changes the name of the file MacGAMUT sends you, we strongly recommend that you correct the name of the file before you begin using it. The correct name will make it a lot easier for you to keep track of your **startMG6.mgs** file.

> If your e-mail program or internet service automatically rejects or quarantines e-mail messages and/or attachments from unknown addresses, you may need to temporarily change your e-mail program's or internet service's options or preferences in order to receive this e-mail message and attachment. Check settings for your e-mail program, anti-virus software, firewall, and/or internet service provider. After you have completed the registration process, MacGAMUT sends start files immediately. Assuming your internet service provider normally processes e-mail quickly, you should receive your start file very soon. If you've done everything you can to allow the e-mail with your **startMG6.mgs** file attached to be delivered, and your file still does not arrive, contact **TechSupport@macgamut.com** for assistance.

If you are a new MacGAMUT user (*i.e.*, not upgrading from *MacGAMUT 2003*), please skip ahead to the **Keeping track of your startMG6.mgs file** section

Who can upgrade FREE to MacGAMUT *6*? Anyone who buys MacGAMUT software is entitled to one FREE upgrade to the next release. In other words, if you bought a *MacGAMUT 2003* User Disk, you can download a FREE upgrade to **MacGAMUT *6*** from **www.macgamut.com**. Otherwise, please visit **www.macgamut.com** to purchase **MacGAMUT *6***!

If you are upgrading from *MacGAMUT 2003*: First, download the **MacGAMUT *6*** upgrade from **www.macgamut.com** and install it. Everything you need to upgrade to **MacGAMUT *6*** is included in this free download, and your *MacGAMUT 2003* CD-ROM will still serve as your key CD for running **MacGAMUT *6***. *Note:* if you are using MacGAMUT for a course, the software may have already been

installed the software on the hard drives of the computers in your music department's lab, so you may not need to download and install the **MacGAMUT *6*** upgrade yourself, unless you will be using MacGAMUT on other computers as well.

    MacGAMUT 2003 used a file named **start2003.mgs** to maintain a record of your work and to serve as your key to access the software; **MacGAMUT *6*** uses an upgraded file, named **startMG6.mgs**. You can upgrade your **start2003.mgs** file to the new **startMG6.mgs** format on either a Windows or Macintosh computer. Upgrading your file to the new **MacGAMUT *6*** format from *MacGAMUT 2003* is easy and need only be done once. *After* you have installed the new **MacGAMUT *6*** software on a computer (either Windows or Macintosh), double-click your old **start2003.mgs**.

- *In Windows:* **MacGAMUT *6*** will open.
- *On Macintosh:* If you see the familiar green *MacGAMUT 2003* opening screen, or you are asked to insert a MacGAMUT 2003 or 2000 CD, leave *MacGAMUT 2003* and double-click the **MacGAMUT 6** application to start it. When the program prompts you to select your start file, choose your old **start2003.mgs** file.

You will be warned that your old **start2003.mgs** file is about to be upgraded. Agree to continue, save the new **startMG6.mgs** version of your old file, and you're ready to begin using **MacGAMUT *6***. After your file has been upgraded to the new format, you can start up **MacGAMUT *6*** simply by double-clicking your **startMG6.mgs** file. It's that easy. (*Note:* **On Macintosh**, if double-clicking your **startMG6.mgs** file still does not start up **MacGAMUT *6***, see the instructions at the end of **Step 1: Installing MacGAMUT from the MacGAMUT CD**.)

    IMPORTANT: Once your old **start2003.mgs** file has been upgraded to the new **MacGAMUT *6* startMG6.mgs** format, be sure to start up from your new **startMG6.mgs** file every time from now on. All of your statistics and presets from the old file are preserved in the new file, so you can begin working wherever you last worked in *MacGAMUT 2003*, and you won't lose credit for any work you did prior to the upgrade. It's still a good idea to keep a copy of your old **start2003.mgs** file in a safe place, however. If disaster strikes and you lose all copies of your working **startMG6.mgs** file, you could again use your old **start2003.mgs** file to create a new **startMG6.mgs** file, following the same procedure.

Keeping track of your startMG6.mgs file: We strongly recommend that you watch the **Managing Your startMG6.mgs File** video (accessible from the Windows **Start** menu under **All Programs/MacGAMUT 6/Video Tutorials** or inside the **Video Tutorials** folder in the **Applications/MacGAMUT 6** folder on a Macintosh). Step by step, this useful video shows you everything you need to know about your **startMG6.mgs** file. Your **startMG6.mgs** file is a vital part of your **MacGAMUT *6***

software, and you'll need to locate it each time you use the software. In fact, the quickest way to start **MacGAMUT *6*** is by double-clicking on your **startMG6.mgs** file. Both Windows and Macintosh computers will keep complete records of your MacGAMUT work in this file, automatically updating and saving your statistics as you work. Your **startMG6.mgs** file also stores your "presets," either the original settings that come with the program or customized presets designed by your instructor. You can change the **startMG6.mgs** file's name, if you want, but always keep that **.mgs** on the end to identify it as a MacGAMUT **startMG6** file on both Windows and Macintosh computers.

If you'll be using **MacGAMUT *6*** only on your own computer, you may want to store your **startMG6.mgs** file on your computer's hard drive. If you're switching from one computer to another, you can e-mail your file to yourself, store it on a server, or carry it with you on removable media such as a flash drive. If you plan to e-mail your file, please see the **Sending files as e-mail attachments** portion of the **Troubleshooting** section of this **Guide**. If you anticipate using **MacGAMUT *6*** on both Windows and Macintosh computers, keep in mind that Macintosh computers can read PC-formatted media just fine, but Windows computers *cannot* read Macintosh -formatted media without having additional software installed. So the easiest solution is to move your **startMG6.mgs** file from computer to computer on a PC-formatted disk or drive.

Whatever you name it, and however you store and move it, be sure to keep a recent back-up copy of your **startMG6.mgs** file *on a different disk or drive*. Think of it as insurance, just in case something happens to the file you're using. **MacGAMUT *6*** reminds you to back up your **startMG6.mgs** file each time you leave the program. It even suggests a back-up file name that includes the date the back-up copy was made. Make as many back-up copies as you want and keep at least your two most recent back-up copies, but always be sure to start up from the file you used last whenever you go back to work on MacGAMUT, *not from a back-up copy*. Remember, you're saving the back-ups only in case you ever lose the current **startMG6.mgs** file you use every time. If you find that you have to re-master levels you had already mastered, you have probably accidentally started with an out-of-date file. Your current **startMG6.mgs** file will automatically start you again wherever you were when you ended your last MacGAMUT session, with all your time and level mastery statistics intact.

If you somehow lose the original and all back-up copies of your **startMG6.mgs** file, you can always get a new copy.
- If you registered on the MacGAMUT website and received a brand new **startMG6.mgs** file, you can just return to the MacGAMUT website and pick up a replacement copy. Go to the Register Your Software section, click the

link for previously registered users who need a new **startMG6.mgs** file, and fill in the same Registration Number and name you registered under initially.   Of course, your replacement file will start you back at "zero," and you'll lose credit for all the work you've done previously, so saving back-up copies of the file you've been using is by far the preferable course.

- If you upgraded from a ***MacGAMUT 2003*** **start2003.mgs** file, you can just upgrade that same file again. Once you have your replacement **startMG6.mgs** file, store a copy of your old **start2003.mgs** file in a safe place again, just in case you ever need *yet another* replacement file. Sorry, but this newly upgraded replacement file will start you back at wherever you were when you last used ***MacGAMUT 2003***. That's why you want to make regular back-ups of your file, so you don't lose credit for the work you've done.

Whether you have to start back at "zero" or have to start with your ***MacGAMUT 2003*** stats, you really don't want to lose all copies of your **startMG6.mgs** file!

Setting Up Your Equipment

If you are using MacGAMUT only on lab equipment your instructor has already set up for student use, you can skip ahead to the next section, **Getting Started**. On the other hand, if you need to set up a computer to use the software (for example, if you have your own Windows or Macintosh computer, or if you are using the program in a school computer lab not set up specifically for music students), this section contains information useful to you.

MIDI keyboard: MacGAMUT is MIDI-compatible, though a MIDI keyboard is required only for the Keyboard exercises. If you have access to a MIDI keyboard, you may use it to hear the exercises played through the MIDI instrument rather than through the computer. In addition, if your instructor has changed the Aural ISC presets to *allow* MIDI entry, you have the option of entering your responses to ISC drills by playing the intervals, scales, and chords you hear on the MIDI keyboard, and the computer will notate what you play on the screen. Unless your instructor has changed the RD, MD, and HD presets to *prevent* MIDI entry, you have the option of entering your RD, MD, and HD responses by playing the rhythms, melodies, and chord progressions you hear on the MIDI keyboard, and the computer will notate what you play on the screen. You always have the option of MIDI entry whenever you are working on the MacGAMUT Aural drills in Practice Mode. Only the Keyboard ISC drills actually require a MIDI keyboard, since the point of these drills is to develop your facility in playing intervals, scales, and chords on a keyboard.

To use a MIDI keyboard, be sure MIDI/Windows Sound (or MIDI Sound on Macintosh) is checked in MacGAMUT's **Sound** menu. You need to make two additional choices from MacGAMUT's **Sound** menu. Select your MIDI output device from the MIDI Output Device submenu and, if you plan to use MIDI input, select your MIDI input from the MIDI Input Device submenu.

General MIDI: General MIDI means that the synthesizer recognizes a standard list of 128 program numbers and their corresponding instrumental sounds. QuickTime and most Windows/PC sound cards use General MIDI, but not all MIDI keyboards and synthesizers are General-MIDI-compatible. If the instruments you select when you choose Change MIDI Instrument from the **Sound** menu do not produce the timbres you expect from your MIDI keyboard, your keyboard does not recognize General MIDI messages. In that case, select General MIDI On from the **Sound** menu to toggle it to General MIDI Off, and select the timbres you want on the MIDI keyboard itself. *Note:* If your MIDI keyboard is not General-MIDI-compatible and General MIDI is on, you will probably not hear the metronome tick sound for Rhythmic Dictation or Melodic Dictation. Instead, you will probably hear a "wrong" note (a pitch that may even be dissonant with the beginning pitch of the melody) played as the metronome pitch. If you want to hear the metronome beats played on an appropriate pitch before the melody begins, be sure to choose pitch from the Hear Beats before Exercise submenu under the **Tempo** menu.

MIDI channels: If a particular brand or model of MIDI keyboard requires changing the MIDI input and output channels (channel 1 is the default for both), you can make any of these changes by selecting the appropriate submenus from the MacGAMUT **Sound** menu. For MIDI output, unless you select 1 (all voices on 1), each voice in Harmonic Dictation and in four-voice chords is played on a separate channel (e.g., if you choose channel 1 for MIDI output, channels 1 through 4 are used for playing chords).

Volume: In addition to using the volume controls on your computer, external speakers, or MIDI keyboard, you can also control the volume at which exercises are played by selecting the Volume submenu from the **Sound** menu at the top of any MacGAMUT Exercise Screen.

Earbuds or Headphones: If you are using MacGAMUT in a setting where sound may disturb others, you will wants to use earbuds or a pair of headphones.

Getting Started

If you are using MacGAMUT as a course requirement, your instructor may want you to use special presets that he/she has developed to customize the software for your course. You may want to check with your instructor to find out if you should install new presets before you spend a lot of time working on MacGAMUT.

Your CD-ROM is your key disk: If you have not yet installed MacGAMUT on your computer's hard drive, see **Step 1: Installing MacGAMUT from the MacGAMUT CD** above. Your original MacGAMUT CD-ROM serves as a "key" disk, and it must be in your CD/DVD drive whenever you are running the program. If you are using MacGAMUT for a course, your instructor may have already installed the software on the hard drives of your music department's computers. But remember, even though you are running MacGAMUT from a hard drive, *you must always insert your MacGAMUT CD in the CD/DVD drive* of the computer to access the program. Installing MacGAMUT on more than one hard drive *is not* a violation of copyright. Since the software may not be accessed without an original MacGAMUT CD and **startMG6.mgs** file, you may install the MacGAMUT software from your CD-ROM on as many computers as you wish. Duplicating the CD, however, *is* a violation of copyright. *Note:* Either an original *MacGAMUT 2003* CD or an original **MacGAMUT *6*** CD will function as a key disk for running **MacGAMUT *6***.

Starting from your startMG6.mgs file: The easiest way to start MacGAMUT is to double-click on your **startMG6.mgs** file. Make sure that your **startMG6** file name ends with **.mgs** so that your computer will be able to link your **startMG6.mgs** file with the **MacGAMUT *6*** application.

- *In Windows:* If file extensions are hidden, you will not see the **.mgs** as part of the file name, but you will know it's there because double-clicking your file will start MacGAMUT.
- *On Macintosh:* If double-clicking your **startMG6.mgs** file does not open **MacGAMUT *6*** the first time you try it, the problem is easy to fix. Just right-click (or Control-click) on your **startMG6.mgs** file, and select Get Info. Click on the Open with arrow to make it point downward, and then select **MacGAMUT 6** from the list of applications in the popup menu. Click the **Change All** button, and from then on, double-clicking any **.mgs** file will always open **MacGAMUT *6***.

MacGAMUT will begin by showing the name you registered under and asking you to verify that you have opened your own **startMG6.mgs** file. If you would rather *see* how this process works instead of just reading about it, you can watch the **Managing Your startMG6.mgs File** video (accessible from the Windows **Start**

menu under **All Programs/MacGAMUT 6/Video Tutorials** or inside the **Video Tutorials** folder in the **Applications/MacGAMUT 6** folder on a Macintosh). The program will also tell you when you last used the **startMG6.mgs** file you have opened, a convenient way for you to double-check that you have chosen your most recent file and not an older one. On this same screen you'll find the **CHANGE PRESETS** button that allows you to install new presets easily whenever necessary. If MacGAMUT cannot find the Rhythms, Melodies, or Progressions libraries linked to the installed presets file, you may also be asked to locate those libraries at this point. As the application starts up, you will hear a four-voice chord, played blocked first and then arpeggiated, as a test of whatever sound source has been selected. If you do not hear this initial test chord, you should start in Practice Mode, so you'll have ample opportunity to check your equipment and settings to locate the problem. (If you need serious help with a sound problem, check Sound Problems in the Troubleshooting section near the end of this **Guide**.)

Choosing what to work on: When you first begin working with MacGAMUT, you may want to spend a bit of time in Practice Mode, so you can become comfortable with MacGAMUT's note-entry procedures without the pressure of working for mastery. You may choose the program component you wish to work on from an on-screen menu by clicking on your selection. If you click on **Rhythmic Dictation**, **Melodic Dictation**, or **Harmonic Dictation**, you will go directly to the list of levels available for you to work on. If you click on **Intervals**, **Scales**, or **Chords**, you will be given the additional choice of working on **Aural Training**, **Written**, or **Keyboard** drills. If you choose **Make My Own Drill** after selecting **Intervals**, **Scales**, or **Chords**, you will be able to set up your own very specific **Aural Training**, **Written**, or **Keyboard** drills.

When you see the list of levels, your current level is marked by a dark dot within the circle next to the level name. If you are using MacGAMUT in Regular Mode and it is Set for Mastery (that is, you must demonstrate your proficiency on each level's materials before you can proceed to the next higher level), none of the levels beyond your current level will be available to you, and those more advanced levels will be dimmed in the list you see. If you click on the dot next to Practice on the levels screen, or if your instructor has changed the preset for "Mastery" to "Not Set for Mastery," all levels will be available to you. (If you are in Intervals, Scales, or Chords at this point, you again have the option of clicking on **MAKE MY OWN DRILL**.) To choose any level that is not dimmed, click the circle beside the level name you wish to work on. When you are ready to continue, click **OK**. To cancel any changes you may have made, click **CANCEL**. To return to the previous screen in order to choose a different drill option, click **EXIT**.

Note: You must have a MIDI keyboard connected to your computer in order to use Keyboard Drill. For more information about **Make My Own Drill** and **Practice**, see the separate entries for these topics later in this **User Guide**.

Using the Program

Menus and submenus: Click on the item you want in the menu bar at the top of the screen and select the specific menu topic you want from the pull-down menu by clicking on it. To choose from a submenu, click on the item you want in the menu bar at the top of the screen; select the topic you want; move to the submenu; and then click on your choice there. Some of the submenus have submenus of their own, so you may need to move through more than one submenu to select the choice you want.

On-screen Help: Help in using specific features of the program is always available from any of the Exercise Screens. Choose the topic you want from the **Help** (or **MG Help** on Macintosh) menu, and information about that topic will appear in the message box in the lower left corner of the Exercise Screen.

Message box: Text messages appear in this box in the lower left corner of any Exercise Screen when, for example, you click the **Check Answer** button or you use the **Help** menu to access instructions about how to use a particular program feature. Use the scroll bar on the right edge of the message box to move up or down through the text. Every time a new message is posted, the color of the text in the Message Box will change, alerting you to check the Message Box.

Go On, Exit and Quit: When you have finished one exercise and want to go on to the next, click **Go On** or type 'g' to prompt the computer to select another exercise for you. When you are ready to leave the program, you may choose Exit from the Windows **File** menu or Quit from Macintosh's **MacGAMUT** menu in any Exercise Screen. Alternatively, you may click the **Exit** button and then click **Quit** in the next window. When you are working in Regular Mode and are working toward mastery on any level, you cannot leave an Exercise Screen in that level without first having your answer checked at least once. In other words, once a new exercise is presented, the **Exit** and **Go On** buttons are not visible, the Exit or Quit menu choice is dimmed, and you cannot quit working on the program, change levels, change drills, or go on to another exercise without first completing your answer and clicking **Check Answer**. You may leave most of the program windows other than the Exercise Screens at any time by clicking an **Exit** or **Quit** button on the screen.

Changing the tempo: When you want to change the tempo of an exercise, select a new metronome marking (stated in beats per minute) from the **Tempo** menu.

Unless your instructor has changed the default settings for the aural-training exercises, some of the tempo choices will be dimmed because a minimum tempo has been set for that exercise, and you cannot reduce the tempo below that setting.

Changing the sound source: To change the sound source for MacGAMUT, make your selection under the **Sound** menu:

Windows MIDI/Windows sound:

1) To change the instrumental sound played by your MIDI keyboard or by Windows sound, choose Change Instrument by Name or Change Instrument by Number under the **Sound** menu. If you choose Change Instrument by Number, you will probably want to refer to the General MIDI Patch Names file (accessible under **All Programs/MacGAMUT 6/Text Files** in the Windows **Start** menu) for the list of General MIDI numbers and instruments. If the instrument you select does not produce the timbre you expect, either you have not selected General MIDI On or else your MIDI keyboard is not General-MIDI-compatible. You will find that some of the instrumental sounds available through your MIDI keyboard do not work well for Chords and HD, as they do not provide adequate definition among multiple voices. It is best, therefore, to experiment with changing MIDI instrument timbres at a time when you can play a multi-voice exercise repeatedly while trying different instrumental sounds.   For instance, you might experiment with various sounds in Practice Mode or after completing an exercise in Regular Mode but before going on to the next exercise; in HD, you can test sound options by clicking the **Tonic** button or by typing an upper-case **T** to hear the tonic chord as often as you like.

2) The General MIDI On setting is a "toggle" switch; to change the setting, select General MIDI On/Off from the **Sound** menu.

3) To select a MIDI keyboard input device, choose from the MIDI Input Device submenu under the **Sound** menu.

4) To choose a different MIDI/Windows sound source, choose from the MIDI Output Device submenu from the **Sound** menu. The default choice is the MIDI MAPPER, using the sound source already selected on your computer.

5) The default setting for MIDI input is channel 1. To choose a different channel, select MIDI Input Channel from the **Sound** menu, and select the channel you want from the submenu.

6) The default setting for MIDI output id channel 1 (1-4 for HD). To choose different output channels, select MIDI Output Channel from the **Sound** menu, and select the channels you want from the submenu. If your MIDI keyboard is not General-MIDI-compatible, and you want to hear MIDI output in multiple timbres for HD exercises, make your instrument selection on the

keyboard itself. If your keyboard has only one output channel, select 1 (all voices on 1) from the submenu.

Macintosh QuickTime sound:
    Change to QuickTime sound by selecting **Sound** from the menu bar and then choosing QuickTime Sound.
1) To change the QuickTime instrument, select **Sound** from the menu bar and choose Change QuickTime Instrument. If some of the listed instruments appear in italic type, they are not available in the version of QuickTime Musical Instruments installed on your computer.
2) You can listen to the QuickTime instrument you have chosen by clicking on individual keys on the piano keyboard in the instrument selection window.
3) After you have selected the QuickTime instrument you want, click **OK**. If your selection does not change the timbre as expected, turn General MIDI on (see the **General MIDI** paragraph in the **Setting up Your Equipment** section above for more information). For Chords and HD, some of the QuickTime instrument sounds do not work well, because they do not provide adequate definition among multiple voices. It is always best, therefore, to experiment with changing the QuickTime instrument at a time when you can play a multi-voice exercise repeatedly while trying different instrumental sounds.   For instance, you might experiment with various sounds in Practice Mode or after completing an exercise in Regular Mode but before going on to the next exercise; in HD, you can test sound options by clicking the **Tonic** button or by typing an upper-case **T** as often as you like to hear the tonic chord.

Macintosh MIDI sound:
1) To change to MIDI sound from QuickTime sound, choose MIDI Sound under the **Sound** menu.
2) To change the instrumental sound played by your MIDI keyboard, choose Change MIDI Instrument under the **Sound** menu. If the instrument you select does not produce the timbre you expect, either you have not toggled General MIDI On or else your MIDI keyboard is not General-MIDI-compatible. You will find that some of the instrumental sounds available through your MIDI keyboard do not work well for Chords and HD, because they do not provide adequate definition among multiple voices. It is best, therefore, to experiment with changing MIDI instrument timbres at a time when you can play a multi-voice exercise repeatedly while trying different instrumental sounds.   For instance, you might experiment with various sounds in Practice Mode or after completing an exercise in Regular Mode but before going on to the next exercise; in HD, you can test sound options by clicking the **Tonic**

button or by typing an upper-case **T** to hear the tonic chord as often as you like.

3) The General MIDI On setting is a "toggle" switch; to change the setting, select General MIDI On/Off under the **Sound** menu.

4) The default setting for MIDI input is channel 1. To choose a different channel, select MIDI Input Channel from the **Sound** menu, and select the channel you want from the submenu.

5) The default setting for MIDI output is channel 1 (1-4 for HD). To choose different output channels, select MIDI Output Channel from the **Sound** menu, and select the channels you want from the submenu. If your MIDI keyboard is not General-MIDI-compatible, and you want to hear MIDI output in multiple timbres for HD exercises, make your instrument selection on the keyboard itself. If your keyboard has only one output channel, select 1 (all voices on 1) from the submenu.

Changing instruments:

- *In Windows:* If you are using MIDI or Windows sound, choose Change Instrument by Name or Change Instrument by Number from the **Sound** menu. Change Instrument by Name gives you several instrument choices to select from. Change Instrument by Number lets you enter a General MIDI instrument number, see the name of the instrument, and test the sound by playing a scale and a chord. The **General MIDI Patch Names** file (accessible under **All Programs/MacGAMUT 6/Text Files** in the Windows **Start** Menu) lists the standard numbers with their corresponding names. You will be able to test different sounds and save the one you prefer.

- *On Macintosh:* If you are using QuickTime sound, choose Change QuickTime Instrument from the **Sound** menu. If you are using MIDI sound, choose Change MIDI Sound from the **Sound** menu.

On both Windows and Macintosh, unless your instructor has changed the default settings, you may select Change Instruments for HD and grand-staff Chords in order to choose a different instrument for each voice. Whenever you are using computer-generated sound, it is a good idea to try a variety of timbres to find one that works well for you.

Changing the pitch of RD exercises: You can change the pitch of whatever instrumental timbre you have chosen for RD exercises by selecting Select Pitch under the **Play** menu. The submenu permits you to set the pitch, accidental, and octave register separately.

Changing the sound volume: To increase or decrease the volume level of your sound source, choose Volume from the **Sound** menu, and then choose the volume level you want from the submenu. For HD and grand-staff Chords, unless your

instructor has changed the default settings, you may choose Change Voice Volume from the **Sound** menu to make one or more voices louder.

Changing levels or drills: Any time you would like to review by working on a level before the one you are currently on, or if you want to switch to a more difficult level (if you are working in Practice Mode or if your instructor has changed the presets to Not Set for Mastery in Regular Mode), choose Pick Level from the **Change** menu. You will be given the opportunity to choose from the list of levels you saw just before you began work on the exercises. To switch to a different part of the program, choose the component you would like from the **Change** menu. If you choose Intervals, Scales, or Chords, you can then choose Aural Training, Written, or Keyboard from the submenu. If you would like to go to Make My Own Drill, you can select that option from Switch to … under the **Change** menu. You may also click the **Exit** button and then choose the topic you want on the next screen. *Note:* Unless your instructor has changed Regular Mode presets to Not Set for Mastery, you cannot leave the current exercise in a level you are attempting to master without first completing that exercise. In other words, once a new exercise is presented, you cannot quit working on the program, change levels, change drills, or go on to another exercise without first having your answer checked.

How exercises are presented: As might be expected, you cannot change a given pitch or a given duration in any MacGAMUT exercise.

For each exercise in ISC, you will be given the clef and the beginning pitch (or the bass pitch in the grand-staff chord levels). For any of the Aural ISC exercises, you will be asked to identify what you hear and, unless your instructor has changed the presets, to notate what you hear as well. For any Written ISC exercises, you must supply notation to spell the specified interval, scale, or chord. For any Keyboard ISC exercises, you must play the specified interval, scale, or chord on a MIDI keyboard connected to your computer.

For RD, you will be given the time signature, and the first bar line will be positioned for you. If your instructor has altered the presets, you may also be given the first note of the exercise. You will hear a metronome tick to establish the beat, with the number of preparatory ticks for each exercise indicated in the message box. For all RD exercises, you must notate the rhythm, including proper barring, beaming, and ties.

In MD, unless your instructor has changed the default settings, you will sometimes be given a beginning pitch, while other times you will be allowed to play the tonic chord but will not be given the beginning pitch. In addition, in MD you will be given the time signature and key signature, and the first bar line will be

positioned for you. You will also hear a metronome tick to establish the beat, with the number of ticks for each exercise indicated in the message box. For all MD exercises, you must notate the melody you hear, complete with durations, appropriate beaming, ties, and proper barring.

In HD, you will see a grand staff with the key signature and as many pitches of the first chord as your instructor has chosen to show you. In HD exercises, you must identify the chord progression by entering the proper harmonic analysis symbols in the boxes under the staff, and you may also be required to notate any number of voices on the staff, depending on what level you are working on and how your instructor may have altered the presets.

In all MacGAMUT ear-training drills, you cannot begin entering your notation or identification while the exercise is being played. Part of the goal of ear-training is to develop your musical memory. If you are busy entering the first interval in a MD exercise while the melody is still playing, for instance, you are unlikely to remember much beyond that first interval.

Playing an exercise: When you are ready to hear an aural-training exercise, click the on-screen **Play** button, type lower-case **p**, or tap the space bar on the computer keyboard. Unless your instructor has changed the presets in Aural ISC exercises, you may hear an exercise played only twice before you click **Check Answer** the first time. In MD, unless your instructor has changed the presets, you may hear a melody played four times before you click **Check Answer**. In HD, you may hear a harmonic progression played two, three, or four times before you click **Check Answer**, depending on the length of the progression and how your instructor may have changed the presets to permit more or fewer hearings. In RD, unless your instructor has changed the presets, you may hear an exercise played four times before you click **Check Answer**. The number of plays remaining appears in the Message Box, and the **Play** button will disappear from the screen after you have heard the exercise the maximum number of times. After you have clicked the **Check Answer** button or typed lower-case **c** the first time to have your response scored, you may play the exercise as often as you wish. In Written ISC, you cannot hear the pitches until after you have completed your on-screen notation and had your answer checked. In Keyboard ISC, you can hear only the pitches you play in response to the exercise until after you have had your keyboard entry graded.

In both RD and MD, the default setting allows you to hear preparatory metronome beats to establish the tempo before a melody is played. The number of beats you will hear before an exercise is indicated in the message box for that exercise. The default number of preparatory beats is determined by each exercise's time signature and whether the exercise begins with an anacrusis. For irregular

meters (such as 5/8 and 7/8), the metronome marks the unequal divisions of the measure with accented beats. To change the number of preparatory beats you hear for an exercise, choose Hear Beats before Exercise from the **Tempo** menu, and select the number of beats per minute from the submenu. If you would prefer to hear no preparatory beats before the exercise, choose none. From the same submenu, you may choose whether you will hear the preparatory beats played as a tick or as a pitch. *Note:* If you are using a MIDI keyboard, and General MIDI is off or MIDI Output Channel 1 (all voices on 1) is selected, the beat will be played as a pitch. If you want to change the instrumental timbre of the metronome sound, select Change Metronome Sound under the **Tempo** menu.

If your instructor has changed the RD or MD presets to permit it, you may choose to hear only half of an exercise played at a time, choosing whichever half you want to hear from the Play Original submenu under the **Play** menu. Playing either the first or second half of an exercise counts as a half-playing in calculating the number of plays remaining. Also, your instructor may have changed the presets to permit you to hear your on-screen notation played either whole or by halves, before having it checked. You may choose this option from the Play Mine submenu under the **Play** menu.

For both MD and HD, whenever the **Tonic** button appears on the screen, you may hear the tonic chord of a MD or HD exercise played at any time by clicking the on-screen **Tonic** button or by typing an upper-case **T**.

If your computer is connected to a MIDI keyboard and you would prefer to hear the exercises played through MIDI, choose MIDI Sound from the **Sound** menu. You must also select the appropriate MIDI interface device from the MIDI Output Device submenu under the **Sound** menu.

Entering identifications in Aural ISC: To enter the identification of the interval, scale, or chord you hear in an aural-training exercise, click the box in the array of possible answers that contains the identification for the sequence of pitches you heard. The computer will show you when your click registers by inverting the box (you will see white lettering on a dark background instead of dark lettering on a white background). If you change your mind, just click a different box. In some cases, you will need to select answers from two different sets of boxes in order to enter a complete answer. For example, you will need to indicate both the quality and the inversion of a chord for many of the Chord exercises. In Intervals and Scales, if there are too many answer choices to be displayed in an array of boxes under the staff, you will select your answer from a menu which will appear just above the message box. Just click on the **Choose I.D.** button in Windows or click on the popup menu in Macintosh to see all the available choices, and select the correct

interval or scale identification by clicking on it.   The identification you have chosen will then be displayed on the screen. Again, if you change your mind about your selected answer, you can make another selection before having your answer checked.

Entering harmonic analysis symbols in HD: From the array of harmonic analysis symbols under the staff, click on the box or boxes needed to identify a chord. The computer will show you when your click registers by inverting the box (you will see white lettering on a dark background). If you change your mind, just click a different box or boxes. You can un-highlight all boxes you have selected from the array by clicking the on-screen **Clear Choices** button. Once you have selected the boxes needed to provide the complete harmonic analysis for a chord, click in the appropriate box under the staff to position the analysis symbols you have selected. You can change your harmonic analysis by choosing different symbols and then clicking under the chord again to replace your earlier entry.

To insert a harmonic analysis symbol between two adjacent symbols where there is no empty entry box, first highlight the appropriate symbols from the array of harmonic analysis boxes, and then position the cursor where you want to insert the symbols between two adjacent harmonic analyses, and click your mouse. All symbols under the staff to the right of your insertion point will move one space to the right. If there are no empty spaces available on the right, symbols will be moved to the left to make room for the insertion.

To close up any spaces between harmonic analysis symbols under the staff, click the on-screen **Squeeze HA** button to shift all harmonic analysis symbols to the left, eliminating any empty entry boxes you may have left between symbols previously entered.

You can erase a harmonic analysis symbol by clicking on the on-screen **erase HD** box or by typing lower-case **e** to highlight it. When you move the cursor over a Roman numeral, it will turn into an "eraser" (a circle with an X). Click on the Roman numeral to erase it. Turn the eraser off by clicking again on the **erase HD** box or by typing lower-case **e** again. You can also erase a harmonic analysis symbol by clicking the **Clear Choices** button, leaving no boxes highlighted in the array of harmonic analysis symbols, and then clicking on the Roman numeral you want to erase.

To enter a secondary function chord, click on the **/** (slash) symbol box located to the right of the inversion symbols in the harmonic analysis array; then click in a box under the staff to position it. Small boxes will appear on either side of the slash to allow you to enter the "left" and "right" sides of a secondary function analysis. If

you have already entered a harmonic analysis in the box, click slightly to the right or left of the analysis to position the **/** symbol as you wish. You can replace either the left or right side of a secondary function analysis by highlighting the appropriate boxes in the harmonic analysis array, then clicking to the left or right of the slash, depending on which side you want to replace. To replace a previously entered secondary dominant with a single Roman numeral, select the new Roman numeral and then click on the slash of the secondary dominant you are replacing.

It is also possible to indicate a pivot chord modulation in HD exercises. *Note:* If a level contains modulation exercises, it will not include any secondary function chords in those exercises. MacGAMUT does not yet allow you to analyze a pivot chord modulation in quite the usual way. However, you can still show where and how the modulation occurs:

1) Locate the pivot chord. If more than one pivot chord is possible, mark the pivot chord in the position closest to the cadence in the new key.
2) Enter the **L** symbol, which is located in the box where the **/** (slash) symbol usually is.
3) Enter the analysis for the chord in the "old" key on the left.
4) Enter the analysis for the chord in the "new" key on the right.

For example, if the exercise modulates from C to G, and the pivot chord is an a-minor chord, the correct analysis would look something like vi **L** ii (the a-minor chord is vi in C and ii in G, with the **L** symbol separating the two chord analyses).

To indicate that the root of a chord is raised or lowered, click on the appropriate small accidental symbol to the left of the Roman numeral and inversion boxes. *Note:* Indicate the Neapolitan as a lowered II chord.

Entering Notation

Exploring the Melodic Dictation Window: For an illustrated introduction to many of the on-screen note entry techniques you will be using to respond to MacGAMUT exercises, watch the **Exploring the Melodic Dictation Window** video tutorial (accessible from the Windows **Start** menu under **All Programs/ MacGAMUT 6/Video Tutorials** or inside the **Video Tutorials** folder in the **Applications/MacGAMUT 6** folder on a Macintosh). Not all of the topics discussed below are included in this video, but if you'd rather *see* how to enter your responses instead of just reading about it, this video is for you!

Note: In the Keyboard ISC drills, you cannot edit your notation. The only way to change your MIDI keyboard entry in Keyboard ISC is to enter a new response through the MIDI keyboard.

What's required: The staff consists of a series of entry slots for notes, ranging from one entry slot in Intervals to as many as 32 entry slots in RD and MD. In RD and MD, the notation entry slots are individually numbered above the staff. You may use the mouse to enter your notation in any order, skipping and inserting notes as you wish, or even starting with the last pitch and working backward if you prefer. You may change any previously entered notation at any time while you are working on an exercise.

You have not completed an RD or MD exercise until you have marked the measures with bar lines, added ties as needed, and beamed together any flagged notes appropriately. (In the case of beaming and ties, your instructor may have altered the presets to indicate your errors in beaming and ties but not count them against your score in one or more levels.)

In most Intervals and Chords exercises, for greater ease of note-entry, you must enter the notation as a sequence of pitches, as if the interval or chord were arpeggiated, even if the pitches are played as a harmonic interval or a block chord. In Intervals drills, you will enter only a single note following the given note. For harmonic Aural Intervals, Written Intervals, and Keyboard Intervals exercises, an arrow to the right of the staff indicates whether the pitch you must enter is higher or lower than the given pitch.

Unless your instructor has changed the presets for the Aural Scales drills to require you to enter all notation information, the staff will already have the notes of the scale (*without* accidentals) written on it when a Scales exercise in the major, minor, and modal scale levels is first presented.   You will only have to position the appropriate accidentals on the staff and identify the scale you hear. Unless your instructor has changed the presets for Written Scales, you will be required to enter all notation information for the earlier levels. In Keyboard Scales, only the beginning pitch will be given.

 In the Chords exercises, triads and 7th chords that are not on the grand staff (*i.e.*, not in the grand-staff levels where Chord exercises are presented in chorale-style partwriting) are notated in ascending order (in other words, from the given note up). In the grand-staff Chord exercises, the bass pitch will be given, and you must enter the pitches for the tenor, alto, and soprano voices "stacked" above the bass pitch, in the same way you enter notation in HD.

For HD exercises, you may be required to notate any number of voices—from none to all four—on the staff, depending on what level you are working on and how your instructor may have changed the presets.

Staff paper and pencil: Most MacGAMUT users quickly become adept at entering notation on the computer screen, and many find that it soon becomes as natural to them as writing on staff paper. But some find that the mechanics of notation entry on the computer screen get in the way at the beginning, Writing notation down on staff paper first may be especially helpful when you are working on RD, MD, and HD (when notation is required for HD). For example, in the MD exercises, some students may forget the end of a melody while they are sorting out the complexities of getting the first part onto the screen. If you find that entering notes on the screen seems awkward at first, try notating the melody with a pencil on a piece of staff paper as you listen to it the first couple of times. Then you can take your time and concentrate on computer notation entry as you transfer your transcription to the computer screen. Use your last hearing of a rhythm, melody, or harmonic progression to double-check and correct your on-screen notation.

Keyboard shortcuts: If you prefer to use the typewriter keyboard instead of the mouse whenever possible, watch for info about keyboard shortcuts throughout this **User Guide**. Also, be sure to check out the **MacGAMUT Keyboard Shortcuts** file that was installed along with everything else (accessible from the Windows **Start** menu under **All Programs/MacGAMUT 6/Text Files** or inside the **Text Files** folder in the **Applications/MacGAMUT 6** folder on a Macintosh). You can find the same info in the **Help** (**MG Help** on Macintosh) menu, but you might find it handy to keep a printed copy of the entire list of keyboard shortcuts next to your computer while you get accustomed to using them. These typewriter keyboard alternatives can save you both time and mousing effort.

Entering pitches: To enter a pitch on the staff, begin by moving the arrow/cursor into the staff area. When you reach the notation-entry area, the arrow will become a note. In most ISC exercises, the cursor will change to a whole note. In HD and grand-staff Chords, the cursor will change to either a whole note or a filled-in notehead, depending on which voice you have chosen to notate. In RD and MD, it will change to whatever duration is highlighted in the row of boxes above the staff or to whatever duration you have previously selected for that slot. When you have moved the note to the proper position on the staff, click the mouse button to fix the note in position. In RD and MD, each exercise is presented with the "generic" filled-in notehead pre-selected in the boxes above the staff. You may choose to use this notehead in MD to enter pitches on the staff without durations.   Or, in RD and MD, you may select any of the other duration options from the row of boxes above the staff by clicking in the box of your choice or by typing the numerals **1** through **7** to select the boxes in order from left to right. In HD, each exercise begins with the cursor as a whole note in the staff area, ready to enter the soprano voice in the upper staff and the bass voice in the lower staff. You may select other voices to

notate in HD by clicking on the **SATB** boxes just to the left of the grand staff (or you may select the voices to enter by typing the numeral **1** for Soprano, **2** for Alto, **3** for Tenor, and ' for Bass). When you click the appropriate boxes (or type **2** or **3**) to enter the alto or tenor voice, the cursor will appear as a filled-in notehead in the appropriate staff. In grand-staff Chords, the bass note is always given and cannot be changed, so the cursor will begin as a filled-in whole note for notating the tenor voice in the lower staff and only **SAT** boxes will appear to the left of the grand staff.

Entering accidentals: If you want to put an accidental in front of a note, click the accidental in the row of boxes below the staff. Or you may select an accidental by typing lower-case **d** for double-flat, lower-case **f** for flat, lower-case **n** for natural, lower-case **s** for sharp, or lower-case **x** for double-sharp. Whether you select an accidental by clicking in a box with the mouse or by typing on the computer keyboard, your selected accidental will be highlighted in the row of boxes below the staff. Selecting any accidental cancels whatever accidental was previously selected. When you move the cursor into the note-entry area of the staff, it will take the shape of the accidental you have selected. Position the accidental on the appropriate line or space just to the left of the note and click to fix it in place on the staff. If you want to replace one accidental with another, select a new accidental, move it into position over the old accidental, and click to replace your previous entry.

Entering durations:

    In ISC and HD, the music notation you will enter consists solely of whole notes (with filled-in noteheads for the Alto and Tenor voices in HD and grand-staff Chords to make a graphic distinction between the two voices in each staff), so duration is not a factor.

    In RD, select a duration from the row of boxes above the staff, either by clicking on a box or by typing the numerals **1** through **7** on the computer keyboard. Whether you select a duration by clicking in a box with the mouse or by typing a numeral, your selected duration will be highlighted in the row of boxes above the staff. Selecting any duration cancels whatever duration was previously selected, except that a "dot" may be combined with any duration value except the smallest shown for a particular exercise. To select a dotted value, first select the duration value, either by clicking on the box or typing the numeric equivalent, then select the dot, either by clicking on the dot box farthest to the right in the row of duration boxes or by typing the period on your computer keyboard. You can either move the selected duration symbol onto the single-line staff and click to fix it in place, or you can click the appropriate entry-slot number above the staff to position the selected duration on the staff. To change a duration previously entered, simply select the new duration and click on the entry-slot number above the duration you want to change.

In MD, you may choose to enter both pitches and durations simultaneously by selecting duration options from the row of boxes above the staff and positioning the selected symbols on the staff. Select durations as described in RD above. In MD, if you choose to enter only a duration without specifying a pitch, select the duration and click on the appropriate entry-slot number above the staff. Your choice of duration will appear as a small note temporarily replacing the entry-slot number. Then, when you move the cursor into the staff area to enter the pitch at a later time, the cursor will automatically change to the duration shown above that entry slot. Similarly, if you want to change the duration but not the pitch of a note (or to specify a duration for a "generic" filled-in notehead) you have already positioned on the staff, select a duration and click on the entry-slot number immediately above the note you want to change.

Entering beams: In both RD and MD, MacGAMUT will remind you to add beams when you click the **Check Answer** button, if you have not yet added beams to your answer and the exercise should properly be beamed. To enter beams in either RD or MD, click the on-screen **beam** box (or type lower-case **b** on the computer keyboard) to highlight the box. Then click on the first note you wish to beam and drag the cursor across to the last note you want to beam. (You can also click on the last note and drag back to the first note of the series of notes you want to beam together.) A black line will follow the cursor across the notes as you move the mouse. When you release the mouse button, the line you dragged will turn into a properly positioned beam, joining the notes you dragged across, and the stem directions of the beamed notes will be adjusted automatically as needed. If you have beamed flagged notes (eighths, sixteenths, thirty-seconds) together, they will be beamed as they were flagged. If you beam quarter notes together, they will be beamed as eighths. You cannot beam half notes or any notes without stems. If you want to change beamed eighth notes to sixteenths, simply drag a second beam line across the notes. And, in those levels for which a thirty-second note is a possible duration (a thirty-second note will appear in the seventh duration box from the left), dragging a third beam across will transform sixteenth notes into thirty-seconds.

Entering ties: The procedure for tying notes together in RD and MD is similar to that for beaming. Click the on-screen **tie** box (or type lower-case **t** on the computer keyboard) to highlight the box. Then click on the first note you wish to tie and drag the cursor across to the second note. (You can also click on the second note and drag the cursor back to the first note.) A black line will follow the cursor between the notes as you move the mouse. When you release the mouse button, the line you dragged will turn into a properly curved tie, joining the two notes you dragged between. Tied notes must be on the same pitch; there is no provision for entering a "slur" between different pitches. Only two adjacent notes can be tied in one action.

If you want to tie more than two notes, tie the first two together, then repeat the action to tie the second note to the third, etc.

Moving notation:

    Moving notation up or down on the staff: To move a note or accidental you have previously positioned on the staff to a new location, either up or down, move the mouse until the note or accidental cursor turns into an arrow pointing directly into the symbol you want to move. Click and hold the mouse button down as you either drag the symbol up or down to its new position, releasing the mouse button to fix the symbol in place. You can also click and hold the mouse button down while you type the up and down arrow keys on the computer keyboard to move the pitches or accidentals up and down on the staff. In MD, you may also move one or more notes up or down on the staff by using the "nudge" function. First click the on-screen **Select** box (or type upper-case **S** on the computer keyboard) to highlight the box. Then, if you are moving only a single note, click on that note, and a box will appear, outlining the single note-entry slot. Use the computer keyboard's up and down arrow keys to move the note vertically on the staff. The selected note will move one line or space each time you depress an arrow key. Click the **Select** box (or type upper-case **S** on the computer keyboard) a second time to turn the select function off. You can also shift a sequence of notes up or down in much the same way. First, highlight the **Select** box, then click and drag from the first note you want to select to the last. An open-ended box will follow your cursor, outlining the selected notes. When you release the mouse button, the box will close, completing your selection. You may then use the arrow keys to nudge the entire selection up or down on the staff as desired.

    Moving notation sideways on the staff: In any exercise requiring you to notate more than one pitch, it is possible to move notation sideways as well as up and down. If you want to insert a note between two notes that are next to each other on the staff, simply move the new note into position between them and click to insert the new note. The computer will move the following notes (or chords) to the right to make room for the inserted pitch. (*Note:* In HD, when you insert a note between chords that are already either partially or fully notated, the program assumes you are inserting the first note of a new chord; in other words, if you have notated pitches in more than one voice and you insert a note between two adjacent notes in one voice, chords will be moved to make room for inserting a new chord.) If you have left spaces between pitches that should be next to each other, or if you have removed notes leaving blank spaces, click the **Squeeze** button (or type lower-case **z** on the computer keyboard) to move everything as far to the left as possible, filling in any empty note-entry slots. If you have left an empty entry slot between an accidental and the note you want it to apply to, the computer will not squeeze the two together; you will

need to erase either the note or the accidental before you click **Squeeze**. If there are no empty spaces between notes, nothing will happen when you click **Squeeze**.

Cutting, copying, and pasting notation: In both RD and MD, you may also use the **Select** box to select one or more notes to duplicate, move, copy, or delete. To move notation from one location on the staff to another, first click the on-screen **Select** box (or type upper case **S** on the computer keyboard) to highlight it. Then click and drag from the first note you want to select to the last. An open-ended box will follow your cursor, outlining the selected notes. When you release the mouse button, the box will close, completing your selection. To cut your selection, choose Cut from the **Edit** menu or type **Ctrl+X** in Windows or **Command+X** on Macintosh. With the **Select** box still highlighted, you can now position the notation you just cut elsewhere on the staff, if you wish. To insert your selection, click on the staff between two notes to select the insertion point (marked by a vertical grey line), choose Paste from the **Edit** menu or type **Ctrl+V** in Windows or **Command+V** on Macintosh, and your previously-cut selection will be inserted, shifting other notation as necessary to make room for the insertion. If, rather than inserting your selection between notes, you want to replace existing notation, click and drag across the notes to be replaced to outline them. Then paste your selection as above, replacing the outlined notation with your previously-cut selection. You can use a similar technique to copy notation in order to duplicate it elsewhere in an exercise. After you have selected the notes you want to copy, choose Copy from the **Edit** menu or type **Ctrl+C** in Windows or **Command+C** on Macintosh. Position the cursor where you want to insert your copied notation (or select a series of notes to be replaced by your copied notation), and paste your selection as described above. If, at any time, you want to see the notation you have cut or copied most recently in an exercise, choose Show Clipboard from the **Edit** menu or type **Ctrl+L** in Windows or **Command+L** on Macintosh. A new window will open, displaying your cut or copied notation. If you simply want to delete notation, you may use the select and cut functions described above, or you may select the notation to be deleted and then choose Clear from the **Edit** menu. When you clear a selection, it will not appear in the Clipboard window, and you will not be able to paste the selection into your exercise.

Scrolling in RD and MD: Your computer screen may not be wide enough to display all 32 note-entry slots of an RD or MD exercise, so you may need to "scroll" to the right to access any slots that are beyond the right edge of the window. To scroll the staff in RD or MD, use the pairs of right and left arrow buttons immediately below the staff on both the right and left sides of the window. A single click on any of the arrows will move the staff and notation one note-entry slot in the direction of the arrow. A double-click on an arrow will move you quickly to the

beginning or end. Alternatively, you may use the left and right arrows on the computer keyboard to move the staff left or right, one note-entry slot at a time.

Entering rests: In RD and MD, select rests from the boxes above the staff and position them on the staff much as you do notes. Rests may be entered, moved left and right, and inserted just as notes are, though they may not be moved up or down on the staff, since rests have no pitch. A rest occupies a note-entry slot just as if it were a note.

Entering bar lines: The first bar line in an RD or MD exercise is always supplied when the exercise is first presented. Your response to an exercise is not complete, however, until you have inserted the remaining bar lines to mark the measures. Select bar lines by clicking in the boxes in the upper right-hand corner of the RD or MD screen or by typing upper-case **B** for a single bar line or upper-case **D** for the double bar line. Move the cursor into the staff area, and click *between* note-entry slots, wherever a bar line is needed.

Removing notation:

    Dragging notation off the staff: If you want to remove a note, accidental, rest, or bar line you have entered on the staff, move the mouse until the cursor becomes an arrow pointing directly into the symbol you want to remove from the staff, just as you do to move a note or accidental up or down on the staff; click and drag the symbol off the staff (up, down, or sideways) until it turns into an arrow again; release the mouse button, and the symbol will disappear. If you accidentally click the mouse button on the staff when the cursor is anything other than an arrow, you may unintentionally insert a note or accidental instead of removing one. Try again, this time making doubly sure you are pointing directly into the note or accidental with an *arrow* when you click the mouse button.

    Erasing notation: You may also use the **erase** cursor to remove notation. Highlight the **erase** box by clicking on it or type lower-case **e** on the computer keyboard. When you move the cursor into the staff area, it will turn into an "eraser" (a large circle with an "X"). In RD and MD, you may highlight only the **erase** box to use the eraser cursor to erase bar lines, rests, and pitches (and accidentals in MD). Simply move the eraser over the note, accidental, or bar line you wish to erase, and click. To erase other notation elements in RD and MD, you will need to select a second box in addition to the **erase** box to specify what sort of symbol you want to erase.   For instance, to erase a beam, you must highlight both the **erase** box and the **beam** box. Then move the eraser cursor over the beam between two notes, and click. The beam between the two notes will be removed, and one or both notes will revert to flagged notes. To remove another segment of beam, position the cursor over the next segment and click

again. Similarly, to erase a tie, highlight both the **erase** box and the **tie** box, move the eraser cursor over the tie between two notes, and click. In HD, you can erase all the pitches of a chord at once. Highlight the **erase HD** box, and then click on a chord to erase the entire chord. To undo the eraser's most recent action in RD, MD, and HD, choose Undo from the **Edit** menu or type **Ctrl+Z** in Windows or **Command+Z** on Macintosh. To turn the eraser off, click on the **erase** (or **erase HD**) box or type lower-case **e** again.

 Deleting notation: You can also delete notation in RD and MD by selecting one or more notes and using the Cut or Clear functions, as described in the section headed **Cutting, copying, and pasting notation**, above.

Entering Responses through a MIDI Keyboard

MIDI entry is an option: If you have a MIDI keyboard connected to your computer, you may be able to enter your responses by playing them on the keyboard. Unless your instructor has changed the ISC presets to allow MIDI entry, you may *not* enter your Aural ISC responses in Regular Mode by playing what you hear on the MIDI keyboard, and you can never enter Written ISC responses by playing them on the MIDI keyboard. You have the option of entering your RD, MD, and HD responses by playing what you hear on the MIDI keyboard, unless your instructor has changed the presets to prohibit MIDI entry. You always have the option of MIDI entry whenever you are working in Aural Training Practice Mode. Only the Keyboard ISC drills actually require use of a MIDI keyboard. To use a MIDI keyboard connected to a Macintosh computer through a MIDI interface to enter notation, choose MIDI Sound from the **Sound** menu. Then select the appropriate MIDI interface device from the MIDI Input Device submenu under the **Sound** menu. On a Windows computer, *s*elect the appropriate MIDI interface device from the MIDI Input Device submenu under the **Sound** menu. If you are permitted to hear exercises played through a MIDI keyboard, but you are not permitted to enter your response by playing on the keyboard, the message **MIDI/Windows Sound On** (or **MIDI Sound On** on a Macintosh) will appear on the screen above the **Play** button. If **Enter MIDI** and **Cancel** buttons appear above the **Play** button, in addition to hearing the exercises played through the MIDI keyboard, you also have the option of entering your responses by playing them on the keyboard.

MIDI entry in ISC: To respond to an Aural or Keyboard ISC exercise by playing on a MIDI keyboard, first click the **Enter MIDI** button or type lower-case **m** on the computer keyboard, then begin playing whenever you are ready, starting with the given note. Since duration is not a factor in the ISC exercises, you may play at any

tempo you choose. When you have finished playing, click anywhere on the screen (*except* on the **Cancel** button) or type any key on the computer keyboard to see the notation of your performance. If you are dissatisfied with the notation on the screen and you want to attempt a new MIDI entry, click the **Enter MIDI** button or type lower-case **m** and play your response again. This new entry will replace your on-screen notation only after you click anywhere on the screen or type any computer keyboard key. Should you decide that your second effort was not as good as the notation already shown on the screen from your first attempt, click the **Cancel** button to cancel your most recent MIDI input. You may attempt MIDI keyboard entry as often as you like, and you may edit the on-screen notation just as you would if you had initially entered your response with the mouse (*except in the Keyboard ISC drills, where you must enter notation only through the keyboard*).

MIDI entry in RD: Since pitch is not a factor in RD, you may play your response to a rhythm exercise on any pitch. After you click the **Enter MIDI** button or type lower-case **m**, your MIDI keyboard will play preparatory beats to establish the tempo. You must begin playing at that tempo and in rhythm any time after the last "metronome" beat, using any key on the MIDI keyboard. The computer will begin calculating the durations you play as soon as you play the first note. To see or change the number of beats you will hear, select Beats before MIDI Entry from the **MIDI Entry** menu and choose the number of beats from the submenu. To see your MIDI response notated, click anywhere on the screen (*except* on the **Cancel** button) or type any key on the computer keyboard after you have finished playing. If you are dissatisfied with the notation on the screen, you may make additional attempts, following the same procedures described in the **MIDI Entry in ISC** paragraph immediately above. You may make as many additional attempts to enter your response as you wish, and you can always edit your on-screen notation as needed using the mouse. At the very least, you will need to use the mouse to mark the measures of your rhythm entry with bar lines, and you may also need to add beams and ties to your answer using the mouse before having the computer check your work.

MIDI entry in MD:
  Entering pitches and durations simultaneously: Since tempo and rhythm are important musical components of melodies, the MD exercises require more precision in your MIDI entries, but you have several options. If your keyboard skills are good, you may choose to enter the pitches and durations simultaneously by selecting Enter Pitches and Durations from the **MIDI Entry** menu. After you click the **Enter MIDI** button or type lower-case **m**, your MIDI keyboard will play preparatory beats to establish the tempo, and you must begin playing at that tempo and in rhythm any time after you hear the last beat. The computer will begin calculating the durations you play as soon as you play your

first pitch. To see or change the number of beats you will hear, select Beats before MIDI Entry from the **MIDI Entry** menu and choose the number of beats from the submenu. To see your MIDI response to an MD exercise notated, click anywhere on the screen (*except* on the **Cancel** button) or type any key on the computer keyboard after you have finished playing. If you are dissatisfied with the notation on the screen, you may make additional attempts, following the same procedures described in the **MIDI Entry in ISC** paragraph above. You may make as many additional attempts to enter your response as you wish, and you can always edit your on-screen notation as needed using the mouse.   At the very least, you will need to use the mouse to mark the measures of your melody with bar lines, and you may also need to add beams and ties to your answer using the mouse before having the computer check your work.

   Entering pitches and durations separately: If your keyboard skills are not quite up to the task of entering pitches and durations simultaneously, you may choose to enter the pitches and durations through a MIDI keyboard in two separate entries. First, select either Enter Pitches or Enter Durations from the **MIDI Entry** menu. Then click the **Enter MIDI** button or type lower-case **m**. If you are entering only pitches, you may begin playing whenever you wish (your keyboard will not play preparatory metronome beats). Because duration is not a factor in this entry option, you may play at any tempo and rhythm you choose. If you are entering only durations, your MIDI keyboard will play preparatory beats to establish the tempo (to change the number of beats you will hear, see the preceding paragraph.) You must begin playing at that tempo and in rhythm any time after the last "metronome" beat, using any key on the MIDI keyboard. Whether you are playing pitches only or durations only, click anywhere on the screen (*except* on the **Cancel** button) or type any key on the computer keyboard to see your response notated. If you chose to enter only the pitches of an MD exercise first, you will see generic filled-in noteheads on the staff, representing the pitches you played. If you chose to enter only the durations of an MD exercise first, you will see the durations you played represented by small notes above the staff. If you are dissatisfied with the notation displayed on the screen, you may make additional attempts, following the same procedures described in the **MIDI Entry in ISC** section above. Whenever you choose to add durations to the pitches you entered previously or to add pitches to the durations you entered previously, make the appropriate selection from the **MIDI Entry** menu and proceed as described earlier in this paragraph. Again, you may make as many additional attempts to enter either pitches or durations as you wish, and you can always edit your entry as needed with the mouse.   At the very least, you will need to use the mouse to mark the measures of your melody with bar lines and to add beaming and ties as needed.

MIDI entry in HD: In Harmonic Dictation, click on the **SATB** boxes directly below the **Enter MIDI** button to indicate which voices you will choose to enter from the keyboard. Click on the boxes individually to turn them on and off. If you highlight all four **SATB** boxes, MacGAMUT expects you to play all four voices, one chord at a time. In that case, you need not play all the notes of the chord simultaneously, but you must play all four notes of each chord before going on to the next chord. (If two different voices share the same keyboard note, play that note twice.) Similarly, if you choose to highlight only two boxes, you must play the pitches for those two voices and only those two voices, again one chord at a time. Once you have selected the voices you will enter, click **Enter MIDI** or type lower-case **m** and begin playing. When you finish, click anywhere on the screen (*except* the **Cancel** button) or type any key on the computer keyboard, and whatever you played will replace any previously entered notation for the highlighted voices. You may choose Undo from the **Edit** menu to cancel your last MIDI entry before you begin to edit your notation with the mouse. Please note that, even if you have entered the notation for an HD exercise using MIDI, you must still use the mouse to enter your harmonic analysis for the chord progression.

Making the Grade

Checking your answer: Whether you enter your response to an exercise using the mouse or through a MIDI keyboard, check it carefully and correct any errors you find. When you are ready to have the computer check your answer, click the **Check Answer** button or type lower-case **c** on the computer keyboard. If the score for your response is high enough the *first* time you have it checked to meet the requirement for mastery, the exercise counts toward Mastery. Specific errors will be marked in your on-screen notation and identification. Also, more general information about problems you had with the exercise will appear in the message box in the lower left corner of the screen.

Progress toward mastery: With the default Original Presets, you are required to get 8 out of the last 10 exercises correct to achieve mastery on a level. Your instructor may have changed those presets to set the requirements for mastery either higher or lower. Except for the Make My Own drills, each Exercise Screen displays your mastery goal and your progress toward mastering the level, both numerically and graphically. For example, if you are required to get 8 out of the last 10 correct in order to achieve mastery on a level, your mastery goal is shown as Goal: 8 out of 10. If your score as you progress toward that goal is 7 out of 9, your score will be shown as Score: 7 out of 9. Across the bottom of the window, a row of boxes presents the same data in graphic form. In this case, the number of boxes in the row is 10 (corresponding to the 10 in your 8 out of 10 goal). Each correct

response to an exercise is recorded as a green box; each incorrect response is recorded as a red **X** in a box. Your score for the last exercise you completed appears in the last box on the right, and your record for previous exercises shifts one box to the left each time you have a new exercise scored. If your score is 7 out of 9, two of the last 9 boxes will have a red **X** and 7 of those last 9 boxes will be filled with green. A quick glance at the bottom of the window will tell you how you are progressing toward your goal of mastery on the current level.

Learning from your mistakes: Even if your response contains errors, you can still learn from an exercise by taking the time to hear the exercise played again (after your response to an exercise has been graded the first time, you may hear the exercise as often as you wish) and trying to correct your response before clicking the **Check Answer** button again. Unless your instructor has changed the presets, you can have your answer checked twice in ISC, three times in MD and RD, and two or three times (depending on the level you are working on) in HD. If your response still contains errors when checked the last time, the correct answer will appear on the screen together with your answer. In ISC, you may now click the **Play Notes** button to hear what you notated or click the **Play I.D.** button to hear the identification you furnished; click the **Play Correct** button (or type lower-case **p** or tap the spacebar) to hear the original exercise again. If you want to hear the difference between the answers on the screen and any other possible answer, use the **Play** menu to listen to as many different possibilities as you wish, comparing them to the notation and identification on the screen. In RD and MD, you may compare your attempt to the correct response by selecting the **Play Correct** and **Play Mine** buttons.   You may also use the Play Original and Play Mine submenus under the **Play** menu to play and compare the first and second halves of both the correct exercise and your response. In HD, you may hear the differences between the correct response and the notation you have entered on the staff by selecting the **Play Correct** and **Play My Notes** buttons.   Unfortunately, MacGAMUT cannot play an incorrect harmonic analysis without your having entered corresponding notation, because the software has not yet been taught to partwrite.

How the computer scores RD exercises: The computer judges your entry whenever you click **Check Answer** or type lower-case **c** on the computer keyboard. The computer calculates your percentage score from the ratio of the number of points you scored on an exercise to the total number of possible points in that exercise.   The total number of possible points for each exercise is twice the number of notes, rests, and bar lines in the exercise, not including the given note. If correct beaming counts in the grade in the current level, ¼ point is added for each beamed note. If ties count in the grade for the current level, 1 point is added for each tie. Two points are subtracted for each incorrect duration; one point is subtracted for each bar line missing from its correct position, for each bar line incorrectly placed,

and for an incorrect number of beats in a measure. If beaming counts, ¼ point is subtracted for each incorrectly beamed note. If ties count, one point is subtracted for each incorrect tie. Although the computer may occasionally be confused by your response, just as a human grader might be, the computer will generally give you credit for whatever is correct, even if you have omitted notes from or added notes to the given exercise.

How the computer scores MD exercises: The computer judges your entry whenever you click **Check Answer** or type lower-case **c** on the computer keyboard (you do NOT have to enter all durations correctly before the computer can judge the pitches, for instance). The computer calculates your percentage score from the ratio of the number of points you scored on an exercise to the total number of possible points in that exercise. The total number of possible points for each melody is twice the number of notes, rests, and bar lines in the melody, not including the given note. If correct beaming counts in the grade in the current level, ¼ point is added for each beamed note. If ties count in the grade in the current level, 1 point is added for each tie. One point is subtracted for each incorrect pitch or rest, for each incorrect duration, for each bar line missing from its correct position, for each bar line incorrectly placed, and for an incorrect number of beats in a measure. If beaming counts, ¼ point is subtracted for each incorrectly beamed note. If ties count, one point is subtracted for each incorrect tie. If you enter more notes than needed, the computer subtracts points for the extra notes as well. Although the computer may occasionally be confused by your response, just as a human grader might be, the computer will generally give you credit for whatever is correct, even if you have omitted notes from or added notes to the given melody. To give you some encouragement, the computer also indicates portions of your melody that have the correct contour (a transposition of a segment of the melody) if they appear close to the place they occur in the given melody. However, because such segments are evidence that you have either lost the tonal center or, at the very least, confused the tonal function of the pitches in the transposed segments, the pitches are still counted wrong.

How the computer scores HD exercises: The computer judges your entry whenever you click **Check Answer** or type lower-case **c** on the computer keyboard. The computer calculates your percentage score from the ratio of the number of points you scored on an exercise to the total number of possible points in that exercise. The total number of possible points for each harmonic progression exercise is twice the number of chords, plus one point for each pitch which must be notated if only bass notation is required, or one-half point for each pitch if more than the bass voice must be notated. Two points are subtracted from the total for each incorrect chord analysis. One point is subtracted for each "good wrong answer," an incorrect chord identification that has the same bass note and a similar

harmonic function compared with the correct response (such as ii^6 instead of IV). If either a chord quality or inversion is wrong, one-half point is subtracted. Secondary dominants are scored similarly: two points off for a wrong answer, one point off for a "good wrong answer" (same bass note and similar function, such as ii instead of V/V), and one point off for an incorrect identification of the right-hand side of the analysis (such as V/vi instead of V/ii). Each pitch error costs one point if only the bass must be notated, or one-half point if more than the bass voice must be notated.

Additional Drill Opportunities

Practice Mode: When you want to work without the pressure of trying to achieve Mastery or the restrictions that the presets (whether altered by your instructor or not) impose on the way you interact with the program, you may want to try Practice Mode. Either choose Practice from the same screen you use to pick a level to work on, or choose Switch to Practice Mode from the **Change** menu on any Exercise Screen. Practice Mode cancels any presets for the program. Practice Mode is "Not Set for Mastery," requires you to enter identification but not notation in Aural ISC and HD (though any notation you choose to enter will still be checked for errors), does not restrict your tempo choices, and permits MIDI entry on any Aural ISC exercise. In RD and MD, Practice Mode is "Not Set for Mastery," does not restrict your tempo choices, permits you to hear the exercise played by halves, permits you to play your own response (either whole or by halves) before you select **Check Answer**, and always permits you to enter notation through a MIDI keyboard. In both ISC and MD, you may decide whether the Practice Mode exercises will include C-clefs by choosing Use C-Clefs Too or Don't Use C-Clefs from the **Change** menu. In HD, Practice Mode is "Not Set for Mastery," does not require notation and always permits you to enter notation through a MIDI keyboard. In all of these components, Practice Mode permits you to move freely among all the levels, and to select **Go On** or **Exit** at any time, even if you have not responded to the current Exercise Screen. From Practice Mode, you may return to Regular Mode at any time by choosing Switch to Regular Mode from the **Change** menu. Note that in Practice Mode, the program continues to keep track of your work as if you were working toward mastery, and messages will still appear so that you know exactly how well your practice is going. But remember, the work you do in Practice Mode does *not* count toward satisfying mastery requirements for Regular Mode, although you do get credit for the time you work and the number of exercises you attempt while working in Practice Mode.

Make My Own Drill (ISC only): If you would like to concentrate on specific pairs or collections of intervals, scales, or chords, click **Make My Own Drill** when you begin or choose Make My Own Drill and the appropriate submenu item from the **Change**

menu. The computer will then allow you to set up your own drill for Aural, Written, or Keyboard in Intervals, Scales, or Chords. Use the checkboxes to indicate which choices will be included in your own personalized drill. You can turn checkboxes on and off by clicking in them. By marking the boxes, you select which items will be included; blank boxes indicate items that will not be included. *Note:* In Written and Keyboard Intervals, you can also choose to drill on a single interval at a time. In Intervals, you may choose to drill on a mix of ascending, descending, and (in Aural Intervals only) harmonic intervals. In Scales, you may choose whether you want to enter the complete notation or add accidentals only (if you choose the Add accidentals only option, noteheads will be positioned sequentially on the staff for you). In Chords, you may choose whether exercises will be presented on a single staff or on a grand staff and how they will be played (arpeggiated first, then blocked; blocked first, then arpeggiated; or blocked only). Once you have made your choices, click the **OK** button, and the computer will give you exercises consisting only of the items you have selected. If you decide you would really rather not make your own drill and you have not yet clicked the **OK** button, click the **GO BACK** button to return to wherever you came from in the program. If you want to erase all the marks you have made in the checkboxes, click the **CLEAR CHOICES** button.

Written ISC: On each exercise screen, the identification for whatever you are asked to notate will appear beneath the staff. Because the object of this drill is to focus on improving your written skills, you cannot hear an exercise played until *after* you have entered your notation and had your answer checked.

Keyboard ISC (MIDI keyboard required): The identification for whatever you are asked to play will appear beneath the staff. Because the object of this drill is to concentrate on improving your ability to play intervals, scales, and chords on a keyboard, you cannot hear the computer play an exercise until after you have entered your response through a MIDI keyboard and had your answer checked. For the same reason, you cannot change your on-screen notation with the mouse to correct an incorrect MIDI keyboard response in Keyboard Drill.

Your Statistics

How MacGAMUT maintains your statistics: Individual statistics are available only if you have your own individual MacGAMUT User Disk and your own personal **startMG6.mgs** file with its unique registration number. If a MacGAMUT User Disk is shared by more than one person, no individual statistics will be kept. As you work on MacGAMUT, the software automatically records your progress in the **startMG6.mgs** file you selected when you started the program. That file is updated periodically as you work on the program, so you don't need to do anything special to

save your work statistics to your **startMG6.mgs** file. You should, however, allow MacGAMUT to save a back-up copy of your current **startMG6.mgs** file frequently (the software will prompt you to save a back-up copy whenever you close the program). For more info, see the **Backing up isn't hard to do** section in this **Guide.**

How to check your statistics: If you have your own **startMG6.mgs** file, you may select **Get Stats** when you begin or choose Get Stats from the **Change** menu in any Exercise Screen and then choose Aural Training, Written, or Keyboard to see your current levels, mastery information (unless your instructor has changed the presets to "Not Set for Mastery"), the total number of exercises attempted, and the total time spent on each component. From each of the stats screens, you can click a button to immediately go to either of the other two kinds of stats (for example you can click **GO TO Written Stats** or **GO TO Keyboard Stats** on the Aural-Training Drills Stats Info screen). If your instructor has altered the Aural ISC presets so that correct notation is not required for the aural-training exercises, I.D. only will appear by the name of the drill. Click **SHOW DATES/TIMES** to see a detailed accounting of how many minutes you spent on each component of the program each day. The date and time in this more detailed display is in the format "month/day: minutes." For example, "04/03: 26" indicates you spent a total of 26 minutes working on that program component on April 3. You may have actually worked in three separate sessions on that day, but separate uses of the same component on the same day are totaled in these listings. The computer keeps track of daily times only for the last 22 dates you worked on MacGAMUT. It continues to keep track of the total time you have worked, however, and the total time accumulated before the dated listings will appear at the beginning of your date and time list with a "generic" date of 00/00. For Make My Own Drill in ISC and for Practice Mode in all program components, the time you have spent working and the number of exercises you attempted are added to the totals for the corresponding components.

Your complete statistics record shows the total time you have spent on each part of the program from the first time you used MacGAMUT through the current date. However, if your instructor requires you to spend a minimum amount of time on MacGAMUT during a specific time period, you may want to check your stats for that period only. These "partial" stats are partial with respect to time and date information only; complete information about the levels mastered and the total number of exercises completed will always be given. In addition, recalculating, viewing, or saving this partial record of work does not in any way change your original records. If you want to see the information only for a specific time period: 1) click on the circle next to Time from; 2) type the from and through dates in the next two blocks (type numbers for the month and day, separated by a slash); and 3) click **RECALCULATE TIME**.

How to stop the clock: The statistics clock keeps track only of the time you actually spend working on MacGAMUT, and does not count any time spent using other applications while MacGAMUT is open. Similarly, if you stop work on MacGAMUT for a period of time, the clock stops and does not restart until you resume work on the program.

Sending statistics to your instructor: If your instructor wants to follow your progress on MacGAMUT, you may be asked to submit your **startMG6.mgs** file periodically, either on disk or as an e-mail attachment. If you have difficulty sending your file as an e-mail attachment, please see the **Sending files as e-mail attachments** heading in the **Troubleshooting** section of this **Guide**.

Ending Your MacGAMUT Session

To leave MacGAMUT: You may quit from any Exercise Screen by choosing by choosing Exit from the **File** menu in Windows or by choosing Quit from the **MacGAMUT** menu on Macintosh. You may also click the **Exit** button in the lower-right corner of any Exercise Screen and then click the **Quit** button on the next window. From most of the program windows other than an Exercise Screen, you may leave by clicking the **Quit** button on the screen. (*Note:* Unless your instructor has changed the Regular Mode presets to "Not Set for Mastery," you cannot leave the current Exercise Screen in a level you are attempting to master without first completing that exercise. In other words, once a new exercise is presented, you cannot quit working on the program without first having your response to that exercise checked.)

Backing up isn't hard to do: Each time you leave MacGAMUT, you will be prompted to make a back-up copy of your **startMG6.mgs** file. MacGAMUT even suggests a name for this back-up copy that includes the date the file was saved. It's a good idea to get in the habit of saving a back-up copy of your **startMG6.mgs** file somewhere other than where you keep your working file. Whether you're keeping your working **startMG6.mgs** file on your own computer hard drive, on a central server in a lab at school, on removable media (*e.g.*, a flash drive), or sending it to yourself as an e-mail attachment, you should be sure to save your back-up copy somewhere else. How often should you back up your file? That's up to you. But consider whether you would want to lose credit for the work you have done since you last saved a back-up file. Computers can malfunction, files can be deleted inadvertently, files sent over the internet can be mangled in transmission, and removable media disks or drives can be misplaced or damaged. Think of the backup copy of your **startMG6.mgs** file as an insurance policy protecting you from possible

catastrophic loss. You don't need to keep all the back-up copies forever, but it's important to keep at least a couple of your most recent back-up files, just in case the unthinkable happens.

Don't leave the computer without it: Finally, unless you're using MacGAMUT only on your own computer, don't forget to remove your MacGAMUT CD from the drive and return it to its case for safe-keeping. Remember that the CD also has your MacGAMUT Registration Number printed on it, and you'll need that number if you would ever need to get a replacement **startMG6.mgs** file. Also, if you're transporting either or both of your working and back-up **startMG6.mgs** files on removable media disks or drives, be sure to take both the removable media and your CD with you when you leave the computer.

MacGAMUT Music Theory Basics

Whether you are new to music theory or just need a little reminder of a detail or two now and then, you might want to explore **MacGAMUT Music Theory Basics.** This in-progress computerized "book," which currently covers Intervals and Scales, offers a series of .pdf documents to help you learn the nuts and bolts of music theory. The "pages" of this reference are complete with music notation, sound, and hundreds of links from page to page to allow you to explore freely. To get the most out of these materials, please download and install the latest version of **Adobe Acrobat Reader** if you have not already done so.

- **Windows** users can access these materials from the Windows **Start** menu. Choose **Start/All Programs/MacGAMUT 6/Music Theory Basics**, and then **Open Music Theory Basics**. The **Getting Started with the Basics** file (also in the **Music Theory Basics** folder) provides additional info about these materials, including what to do if double-clicking .pdf files does not open Acrobat!
- **Macintosh** users can access these materials from their computer's **Applications** folder. Open the **MacGAMUT 6** folder, then open the **Music Theory Basics Folder**, and double-click the **1 Home** file. If double-clicking the **1 Home** file opens **Preview**, please download and install the latest version of **Adobe Acrobat Reader**. Most of the text links will work properly in **Preview**, but if you want to hear the musical illustrations or if you want to use the **Home** and **Close** buttons, you will need Adobe Acrobat Reader. The **1 Getting Started with the Basics** file provides additional info about these materials, including what to do if double-clicking .pdf files does not open Acrobat!

Troubleshooting

If you're having a problem with MacGAMUT, this section is an easy place to start looking for a solution. With any luck, you'll find your answer here. If not, the best place to check for solutions is the MacGAMUT website at **www.macgamut.com**. It will always have the most up-to-date info about all MacGAMUT-related topics, including possible problems and what to do about them. For example, if you think you've found a bug, it's likely that bug is already fixed in a MacGAMUT update you can just download and install on your computer. Of course, you may also be the very first person to run into problem, so if you don't find the problem listed on the MacGAMUT website, you can earn yourself a spiffy MacGAMUT T-shirt for your bug and helping us find and squash it. You will also find a wealth of info in the **FAQs** (Frequently Asked Questions) page of the MacGAMUT website. If you don't find the help you need on our website, or if you want to report a bug, send an e-mail directly to **TechSupport@macgamut.com**. MacGAMUT Tech Support is deservedly famous for being fast and responsive, so don't be afraid that your question will get lost or be forgotten or ignored. In your e-mail, please include the following information, and one of our tech support staff will usually reply to your e-mail within an hour (except in the middle of the night!):

> Name (first and last)
> Registration Number
> Computer (Windows, Macintosh, or both) and operating system
> School you attend and your instructor's name
> Phone Number (with area code)
> City and State
> Best time to call (in case e-mail doesn't solve the problem)
> **And don't forget to explain exactly what the problem is, in as much detail as possible!**

If you don't have e-mail access, you can call our business office at 1-800-305-8731 (toll-free from the U.S. and Canada) or 001-1-614-442-5876 (from all other countries) during business hours (weekdays, hours may vary seasonally), and our office staff will relay your phone message to our tech support office. If your call goes to our voice mail system, we will be able to help you faster if you leave the same information listed in the box above.

CD problems

· Help! My CD is no longer working/damaged/lost! Do I have to buy a new one?

 If your MacGAMUT CD-ROM becomes damaged in use, you can get a *FREE* replacement. Yes, this guarantee applies even if your disk vanishes into thin air or if your dog chews on it (though it would be safer for your dog if you used a real Frisbee next time instead of your MacGAMUT CD). ***Do not*** return a damaged MacGAMUT CD to the bookstore where you bought it. We've asked bookstores not to exchange new CDs for damaged ones. Just send an e-mail to the MacGAMUT business office at **office@macgamut.com**, requesting a replacement CD. If you don't have e-mail access, you can call our business office at 1-800-305-8731 (toll-free from the U.S. and Canada) or 001-1-614-442-5876 (from all other countries) during business hours (weekdays, hours may vary seasonally) to request your replacement CD. Whether you're contacting us by e-mail or by phone, be sure to include your name and postal address. We'll get a replacement in the mail to you right away. Please retain your damaged CD until the replacement arrives, since we may ask you to return the damaged one for quality control inspection. *Note:* The replacement CD-ROM will not include a new Registration Number, so you'll continue to use the **startMG6.mgs** file you used with your original disk. And, if you anticipate losing your CD, it would be wise to record the Registration Number and keep it in a safe place.

· My CD isn't working any more. What can I do?

 Most likely, you have put your CD-ROM in the drive, but have not allowed sufficient time for your computer to read and recognize it. Try again, but be more patient this time to give the CD time to spin and the computer time to recognize it. If you're absolutely sure it still isn't working, it could be scratched or cracked. If so, see the question immediately above.

StartMG6.mgs file problems

· My startMG6.mgs file doesn't work. When I try to use it, MacGAMUT gives me a message saying my file isn't in the proper format for a startMG6.mgs file. What's wrong?

 If you just sent the file as an e-mail attachment, the problem is probably the way you sent the file. See the first question under **Sending files as e-mail attachments** below. If e-mail attachments aren't involved, then the problem is

more serious. If you have been using MacGAMUT for a while and this happens, hopefully you have a back-up copy of your file that you can use instead. If you don't have a back-up copy, you'll need to get a brand new **startMG6.mgs** file (see the next question).

If this is the first time you've tried to use your **startMG6.mgs** *file after you registered*, e-mail **TechSupport@macgamut.com** and tell us exactly what happened. In addition, include the exact name you originally registered under, the 9-digit Registration Number printed on your CD-ROM, and whether you are using a Windows computer, a Macintosh, or both. We'll get you up and running as soon as possible.

· **I've lost my startMG6.mgs file, and MacGAMUT won't let me do anything without that file. How can I get another one?**
It's too late to remind you that you should have been making regular back-ups of this all-important file and storing the back-up copy in a safe place, right?! You'll probably remember to make more regular back-ups in the future. But for now:

If you originally received your **startMG6.mgs** *file after registering on the MacGAMUT website*, you can get a replacement file from the same place. Just go to the **Register your software** section at **www.macgamut.com**, click the link for previously registered users who need a new **startMG6.mgs** file, and enter your name and registration number just as you did the first time to get a replacement file delivered by e-mail. Sorry, but the new file will start you back at zero. If you've lost your Registration Number, e-mail **TechSupport@macgamut.com**. We can look up your number for you, but only if you can give us the exact name you originally registered under and the e-mail address where the file was originally sent.

If you have given your instructor a copy of your **startMG6.mgs** *file* recently, you might ask your instructor if you could have a copy of that file, so you won't have to start all the way back at zero. The copy you've given your instructor is in exactly the same format as your working **startMG6.mgs** file, so it will work just fine.

· **I have registered my software at www.macgamut.com and I'm 100% sure that I filled in the correct e-mail address. However, I have not yet received the Registration e-mail with my startMG6.mgs file attached. How do I get my file?**
When you register, your personal **startMG6.mgs** file is sent out automatically and immediately. It should arrive in a matter of seconds. How long it *actually* takes for you to receive the file is entirely a function of how your own internet service provider processes incoming e-mail. But even if your e-mail provider hangs on to your mail for a while before sending it on to you, it should be at most

a matter of an hour or two before you receive your **startMG6.mgs** file. If your e-mail normally arrives in a timely fashion, or if your file still hasn't arrived after an hour or two:

It's possible that your **startMG6.mgs** *file has already arrived, and you aren't looking for it in the right place*. Many e-mail services have a screening process that filters out "junk" and "spam" mail and saves it in a different inbox. Since the Registration E-mail is coming from the MacGAMUT server and not from a personal e-mail account, your e-mail provider may be assuming it's "junk" or "spam" mail and then depositing it in the alternate inbox. If that is a possibility with your e-mail setup, check your "junk" or "spam" mailbox first.

Something on your computer may be set up to delete or quarantine attachments from unknown addresses. It may be your e-mail program, an anti-virus program, an internet security or firewall program, or even your internet service provider that's stopping the attachment. In that case, check out the **Help** menu for each of these programs or services. You should be able to change the problematic preferences or options to allow e-mail attachments from **macgamut.com** to be delivered to you. If you can't make such a specific change, change the preference or option temporarily—just long enough to receive your **startMG6.mgs** file—and then change it back again to its original setting.

If you still can't find your **startMG6.mgs** *file*, please e-mail TechSupport@macgamut.com with your full name and Registration Number, and we'll send you your **startMG6.mgs** file from a personal account rather than from the MacGAMUT server.

· I have registered my software, but I can't seem to get into the program. Can I get some detailed instructions to get me started?

Have a look at the **Managing Your startMG6.mgs File** and **Exploring the Melodic Dictation Window** videos. These two video tutorials are accessible from the Windows **Start** menu under **All Programs/MacGAMUT 6/Video Tutorials** or inside the **Video Tutorials** folder in the **Applications/MacGAMUT 6** folder on a Macintosh. There are also two separate sets of detailed instructions on the Web for people who are having difficulty getting started. Check out **Getting started on a Windows computer with MacGAMUT 6** or **Getting started on a Macintosh computer with MacGAMUT 6**.

· Since startMG6 is part of the name of the file, I assumed I could just double-click my startMG6.mgs file and MacGAMUT *6* would start right up. That seems to work fine on my Windows computer, but it doesn't always work on a Mac. Why not?

Make sure your **startMG6** file name ends with **.mgs** so that the Macintosh will be able to link your **startMG6.mgs** file with the MacGAMUT application.

That should solve the problem, once and for all. If it doesn't, the problem is easy to fix. Just right-click on your **startMG6.mgs** file, and select Get Info. Click on the Open with arrow to make it point downward, and then select **MacGAMUT** *6* from the list of applications in the popup menu. Click the **Change All** button, and from then on, double-clicking any **.mgs** file will always open **MacGAMUT** *6*.

· When I double-click my startMG6.mgs file on my Windows computer, it tries to open some application other than MacGAMUT *6*. Is there some way to fix this so it starts MacGAMUT?

Either **MacGAMUT** *6* hasn't been installed on this Windows computer (it's not enough just to have the MacGAMUT CD in your CD/DVD drive; you must run the installer program to install the software), or else some other program you have installed recently has wiped MacGAMUT's **.mgs** file association off the map. Install (or reinstall) MacGAMUT, and the installer program will set everything up properly so that **MacGAMUT** *6* will start up when you double-click your **startMG6.mgs** file.

· I copied my working startMG6.mgs file from my hard drive onto a flash disk so I could take it to another computer to work on. But when I tried to use the startMG6.mgs file on the other computer, it wasn't the most recent version of my file. What gives?

You've run into one of the joys of trying to keep track of current file versions on either Windows or Macintosh computers. Computers are lazy, just like people, and they tend to wait as long as possible to update file information. MacGAMUT forces the computer to write a current copy of your **startMG6.mgs** file whenever you leave the program, but MacGAMUT can't do much about what the computer does after that. The only way to be absolutely sure "what you see is what you get" when you copy files on either Windows or Macintosh computers is to **close** the folder the file is stored in and then **reopen** the folder. (And on Macintosh, sometimes, you may also have to click on the file name to *force* it to update the file info.) That forces the computer to update the connection between the file as listed on the screen and the file as it's really stored on your computer. You can also use the Details view on Windows or the List view on Macintosh for easier access to complete information about when the file was most recently updated, and to be absolutely sure the date and time info are correct.

· Every time I start the program, it sets me back to zero. I mastered several levels the other day, but now it says I haven't mastered anything. Help!

Is it possible you've been working in Practice Mode? If you have credit for the time you have spent but don't have credit for the levels, that's probably what

happened. Make sure Regular Mode is selected on the levels screen, *not* Practice Mode. Check the **Help** (**MG Help** on Mac) menu for more info.

If all your stats are wiped out every time, and in place of the last date you worked on the file, MacGAMUT says it's a "new file," you're probably starting by double-clicking the attachment to the original e-mail that came with your **startMG6.mgs** file. Some internet service providers give you a fresh copy of the attachment each time you open it. If you do a search for all files containing the word **startMG6** on your computer, you'll probably find multiple copies of the **startMG6.mgs** file. Locate the most recent **startMG6.mgs** file (or the one you've done the most work on), move that file to an easy place to find on your computer (*e.g.*, to **My Documents** on a Windows computer or to the **Documents** or **MacGAMUT 6** folder on a Macintosh), and then always start from that file instead of from the attachment.

Sending files as e-mail attachments

· **I've tried attaching my startMG6.mgs file to an e-mail message to send it to another computer [or to my instructor], but it doesn't work when it gets to the other computer.**

E-mailing files from one computer to another can often be problematic. Unfortunately, MacGAMUT files are no exception. The good news is that the internet gremlins tend to leave certain kinds of files alone. The best way to send a file over the internet is to use compression software to create a **.zip** file (zipped) and attach it to an e-mail message.

- **In Windows:** Right-click on your **startMG6.mgs** file. Choose **Send To**, and then choose Compressed (zipped) Folder.
- **On Macintosh:** Click on your **startMG6.mgs** file to highlight the name of the file. Then choose Compress [or Create Archive of] [your file's name] from the **File** menu.

If all else fails, you can try sending your files "straight up" with no compression, but don't count on the files coming through in good shape. If even zipped files don't work for you, see the answer to the next question.

· **OK, I've tried it zipped and it still doesn't work to send it by e-mail. Now what?**

If there's no way you can make attachments work, your best remaining option is to do it the old-fashioned way and transport the file on a flash drive or other removable media.

Sound problems

· I'm not getting any sound at all when I use MacGAMUT on my Windows computer. Help me!

     If MacGAMUT sound has been working fine before now, the problem is usually that some other program has changed the volume and/or audio settings on your computer, so chances are that the problem can be solved easily by adjustments in the **Volume Control** and **Audio Properties** windows. Check out **Solving Windows Sound Problems** for detailed, step-by-step instructions (with illustrations!) to help you solve the problem.

     If you are a new MacGAMUT user or if the audio setup on your computer has changed recently, make sure you have assigned the proper sound card in MacGAMUT's MIDI Output Device menu. Go back and start MacGAMUT again. Continue through the sound test, even though you are still getting no sound. When you get to MacGAMUT's main menu, select **Intervals**, then **Aural Training**, and then start with Level 1 *in Practice Mode*. When you get to the first exercise screen, go to the **Sound** menu at the top and click on MIDI Output Device. There you will find a selection of sound cards and perhaps other devices to choose from. Experiment, selecting each choice in turn and then going back to the interval exercise and clicking the **Play** button until you get sound. You may need to guess at the name of the interval that you haven't actually heard (probably getting it wrong) so you can have an infinite number of hearings, but since you're in Practice Mode, it won't hurt your score if you guess wrong.

· I really hate the sound I'm getting from my MIDI keyboard when I use MacGAMUT. I've checked the instrument, and it's set for piano sound, so that's not the problem. What gives?

     MacGAMUT is sending General-MIDI messages telling your MIDI keyboard that you want piano sound. The only problem is that your MIDI keyboard doesn't speak the same language if it's not General-MIDI-compatible. Turn General MIDI off in the **Sound** menu the next time you use MacGAMUT, and MacGAMUT will stop sending messages about instrumental timbre to your MIDI keyboard. With many MIDI keyboards, turning the keyboard off and then back on resets it to the default timbre, which is usually a piano sound. Or you can set whatever instrument you want on the MIDI keyboard itself, and you'll get the sounds you expect. (Check your MIDI synthesizer manual for instructions about setting the instrumental timbre directly on your synthesizer.) For more info, select General MIDI from the **Help** (**MG Help** on Mac) menu on any Exercise Screen, or check the **General MIDI** section in this **Guide**.

· I'm having trouble with sound, and it's ruining my chances at mastery. Help!

First, make sure you have installed the latest version of MacGAMUT. **Click here to go to the UPGRADE/Update page.** Also, it's best to work on solving your sound problems in Practice Mode, where it won't hurt if you get an exercise wrong because you can't hear the sound or don't like the sound you're hearing. Then look through the rest of this **Sound Problems** section, and also check out the **Sound FAQs** on the MacGAMUT website to see if your specific question is covered there. Explore the menus, especially the **Sound** menu and the **Help** (**MG Help** on Mac) menu. If your sound problems are on a Macintosh, use QuickTime Update (**System Preferences/QuickTime**) to make sure you have the latest version of QuickTime. If none of this solves your sound problems, e-mail **TechSupport@macgamut.com**. In your e-mail, be sure to include all the info listed in the box near the beginning of this **Troubleshooting** section. With sound problems, it's especially important to tell us whether you're working on a Windows or Macintosh computer as well as what system you're using (Mac 10.5.2 or Windows Vista, for example).

· Sometimes my MIDI keyboard seems to work fine, but other times it does strange things like playing intervals in the wrong direction or playing just plain awful sounds or not playing all the notes. What can I do?
MacGAMUT is designed to work with MIDI synthesizers that are set up "normally," but with all the bells, whistles, and buttons on synthesizers these days, it's sometimes difficult to understand how to reset a synthesizer to function normally. Start by selecting the simplest settings from within MacGAMUT. From the **Sound** menu, toggle General MIDI on/off and set the MIDI Output Channel to 1 (all voices on 1). Next, turn off your synthesizer, wait a moment, and turn it back on again. Then play a scale from one end of the keyboard to another to make sure you don't have split keyboard, multi, chordal accompaniment, or some other tricky setting turned on. (Check your MIDI synthesizer manual for more info about how to reset it to "normal.") If this still doesn't solve your problem, ask one of your techno-music buddies for help. It's a lot easier for someone who can take a close-up look at your specific MIDI synthesizer to solve the problem. All we can tell you is that MacGAMUT isn't what's causing your problem.

· I'm not getting the "tick" sound for the metronome even though I've selected it in the Hear Beats before Exercise submenu in the Tempo menu. What gives?
If you don't have General MIDI turned on (check the setting in the **Sound** menu and click General MIDI to toggle to On if it's currently Off), or if your sound source is not General-MIDI-compatible, or if the 1 (all voices on 1) option is selected from the MIDI Output Channel submenu in the **Sound** Menu, you won't hear the tick. Choose pitch instead.

· I'm getting a strange pitch for the metronome even though I've selected tick in the Hear Beats before Exercise submenu in the Tempo menu. Sometimes it's really confusing because the pitch is a half-step away from the beginning pitch or the tonic. Why is this happening?

If your sound source is not General-MIDI-compatible, it will misinterpret tick instructions and it may play a pitch that sounds wrong in the tonal context of the melody. The easiest way to solve the problem is to choose pitch instead of tick, but you can also toggle General MIDI to Off in the **Sound** menu. If the pitch option is selected or if General MIDI Off is set, the metronome should play pitches an octave or two above or below the beginning pitch of the melody.

· I sometimes hear the beats played before a melody and sometimes not. How can I fix this?

If you've selected pitch for the metronome from the Hear Beats before Exercise submenu of the **Tempo** menu, keep in mind that the beats are played an octave or two lower or higher than the starting pitch of the melody. Depending on the instrumental timbre you have selected, it's possible the metronome pitch can't be heard in that range. Select a different instrument and see if that helps (piano always works). If you've selected tick and you're not hearing the metronome beats, choose Change Metronome Sound from the **Tempo** menu. That will let you try different metronome sounds and test them to make sure you not only have one you can hear, but also have one you like!

· I'm using Windows sound, using the sound card in my computer, and I don't think the instrumental sounds are very realistic. Is there something I can do to improve the sound quality?

Check the MIDI Output Device in the **Sound** menu. Try the various choices and see if any of them sound better (you may not hear anything at all with some of them!).

General problems

· I can't access the Rhythmic, Melodic, and Harmonic Dictation libraries. The computer tells me I have to find them, but then either I can't find them, or else the computer can't read them when I do find them. Do I need new copies of the libraries?

There are a couple of possibilities here:

If you can't find the libraries on your Windows computer, the default installation location for them is **C:\Program Files\MacGAMUT 6**. On a

Macintosh, the default location is inside the **MacGAMUT 6** folder in the **Applications** folder.

If you're using MacGAMUT for a class, your instructor may be using different libraries. If the names of the libraries you're looking for are something other than **MGRhythms 2003.mgr**, **MGMelodies 2003.mgm**, and **MGProgressions 2003.mgh**, then you'll need to get copies of the different libraries from your instructor and copy them onto your own computer. (And yes, 2003 is still part of the name of the default **MacGAMUT *6*** libraries for at least the 2008-09 academic year. The library format has not changed for **MacGAMUT *6***, so we did not change the names of the libraries.)

· I understand I should always use the very latest update of MacGAMUT, but how do I know if I have the very latest update?

MacGAMUT respects your privacy, so we will never invade your computer to see what version you are using. That means you need to make sure you always have the latest update. We recommend you check for updates about once a month, just to be sure you always have the latest version. With any luck, you'll check many, many times, and never have to download and install an update, but you should still keep checking, just in case!

First, you need to know what version you're currently using. We've made it easy for you to see the version info by making it part of the name of the main exercise window. Just look in the title bar of the window, and you'll see something like **MacGAMUT 6.0** or **MacGAMUT 6.02**, for example. Those numbers after the decimal points make all the difference, so be sure to take careful note of them.

Then go to **www.macgamut.com**, and look for info about updates. If an update is available, the link to it will be displayed prominently, and the exact version number for the update will be part of the info given. For example, a link on the left side of the MacGAMUT homepage or on the main page might have a heading that says "**NEW!!! Version 6.01 is here!**" or "**Do you have the latest version of MacGAMUT (Version 6.01)?**" If the new version is a later one than you are using, you should download this updated software. Click on the links to get to the Update page, and then download and install the latest update onto each of the computers you use MacGAMUT on. If you have installed the update successfully, your window title version info should now match the update version info (in this case, the window title should now be **MacGAMUT 6.01**).

Using MacGAMUT

· I'm having trouble getting the notes and accidentals written on the right line or space on the staff.

If the problem is that you're having difficulty placing the accidentals on the correct line or space on the staff, try putting the note on first. Then, when you enter the accidental close to the right line or space, MacGAMUT will help you by "snapping" it where it's supposed to go. You can also put the note or accidental on any line or space of the staff, not worrying about the exact placement, and then move it up or down to the correct location. Just click on the note or accidental, and hold it while you either drag it up or down on the staff or else use the computer keyboard arrow keys to move it up or down. *Hint:* You may find it easier to work in Practice Mode while you get used to entering pitches or anything else that seems difficult at first. That way you can relax and not have to worry about your score while you practice using the software.

· I'm working on a Scales level that seems to require an accidental for every pitch. It's a pain to use the mouse to select each accidental again and again. Why isn't there an easier way?

You're in luck. There is an easier way. Check out the Accidentals submenu under Keyboard Equivalents to Mouse Clicks in the **Help** (**MG Help** on Mac) menu, and while you're in the vicinity, you might want to check out the other submenus as well. Also, if you're interested in alternatives to other kinds of mouse clicks, take a look at the Computer Keyboard Shortcuts to Screen Buttons item in the **Help**/**MG Help** menu. The same info is also available in the **MacGAMUT Keyboard Shortcuts** file that was installed from your CD-ROM along with everything else (accessible from the Windows **Start** menu under **All Programs/MacGAMUT 6/Text Files** or inside the **Text Files** folder in the **MacGAMUT 6** folder in the **Applications** folder on a Macintosh).

· Do I really have to click on the erase HD box to get rid of a Roman numeral?

No, you don't. If you just don't like clicking on the **erase HD** box, you can always type lower-case **e** instead to turn it on and off. But the easiest way to get rid of a Roman numeral is to replace it with a different one. And there's yet another technique you can use to clear a Roman numeral you've already entered on the screen: first click the **Clear Choices** button, and then click on the Roman numeral you want to erase. This method replaces whatever was in the box with a "blank" Roman numeral.

· Entering the notation in Melodic Dictation seems cumbersome. I have to click on each duration box and then go down and enter the note. When the durations change a lot from note to note, that's a pain.

Try using the number keys **1** through **7** and the period to select the durations you want on your computer keyboard. You can select the duration (without looking!) with one hand and position the pitches using the mouse with the other

hand. You can also enter all the durations first (or second) by clicking on the note-entry-slot numbers above the staff. Of course, if you have a MIDI keyboard (and if your instructor hasn't altered the presets to prevent MIDI entry), you also have the option of playing the melody in. If your keyboard skills aren't the best, remember you can choose to play the pitches and durations either separately or at the same time when you use MIDI entry for Melodic Dictation.

· I'm trying to enter my notation for the Alto and Tenor voices in Harmonic Dictation (or 4-voice Chords), but MacGAMUT won't let me do it. Why not?
There are separate buttons to select the Soprano and Alto voices in the treble clef, just as there are separate buttons for Tenor and Bass voices in the bass clef. Chances are that all you need to do is click the **A** and **T** buttons to solve your problem (or type the number **2** to select the Alto voice, and type the number **3** to select the Tenor voice). Check out Entering Pitches in the **Help/MG Help** menu.

· I was working on MacGAMUT, and the program wouldn't let me quit. There was no Exit button on the screen, and Exit (Windows) or Quit (Mac) was dimmed in the menu. Other than pulling the plug, how am I supposed to stop working on the program?
There's actually a very good pedagogical reason why you couldn't quit or go on to the next exercise. Whenever you are working toward Mastery in Regular Mode, you must complete your response to the current exercise before you can leave the program or switch to a different kind of exercise. As soon as you have your answer checked the first time, the **Exit** button will reappear, and the Exit (Quit on Mac) option in the **File** menu (**MacGAMUT** menu on Mac) will be fully operational. The problem is that, when permitted to quit (or to go on to the next exercise) at any time, students often choose to bypass exercises that are harder than they want to attempt. So having the option of quitting or going on at any point is not unlike allowing students to ignore any test questions they think are too difficult. In Practice Mode or Review Mode, the **Exit** and **Go On** buttons are always operational, as is the Exit (or Quit) option in the **File** (**MacGAMUT** on Mac) menu.

· I had 7 out of 10 right and got the next one right, and I *still* had only 7 out of 10 right. This happens to me all the time, and it's just not fair. Why won't MacGAMUT let me get mastery when I only need to get one more right and I *do* get it right?
The problem is that you have to get 8 out of the *last* 10 exercises correct in order to achieve mastery. It's not just any set of 10 exercises. It has to be the *last* 10. There's a graphic display of your progress in the row of boxes at the bottom of the MacGAMUT exercise screen. As you complete each exercise, a

green box (for a right answer) or a red **X** (for a wrong answer) shows up in the box that is furthest to the right. If all ten boxes are full (as they would be if you had 7 out of 10 correct), the red **X**s and green boxes all get shoved over one box to the left to record your new answer. That means the red **X** or green box that was furthest to the left gets shoved off and forgotten because it's no longer one of the *last* 10 exercises you have completed. If that box happened to be green (*i.e.*, if you got that exercise right), and you just added a new green box on the right, your score won't change. You still have only 7 of the *last* 10 exercises correct. Your score will go up if a red **X** drops off the left when you get an exercise correct, which means your goal is to make enough of those red **X**s drop off the left so that you can achieve mastery. I know it's frustrating to be that close and still not achieve mastery when you get one right, but watching your progress in the boxes should help you understand what's going on.

• **MacGAMUT graded one of my Melodic Dictation exercises wrong. I'm not really complaining because my score was higher than it should have been, but it counted several notes right even though those notes were different from the notes in the same position in the correct melody. Have I found a bug?**

Probably not, although we certainly appreciate your honesty. MacGAMUT is probably doing exactly what it's supposed to do. The problem may be that MacGAMUT is more intelligent than you expect! It tries to grade your Melodic Dictation exercises the same way a teacher would, giving you credit for whatever is correct in the melody, even if you leave out a note or two, or add one or two extra notes. That means that the program is comparing the correct note not only with the note you have entered in the corresponding note-entry slot, but with other nearby notes as well. It's possible that MacGAMUT made a mistake, just as a teacher might, in trying to give you all the credit you deserve. But the next time something like this happens, see if what look to be "wrong" notes in your melody match up with nearby notes in the correct melody. Chances are you'll find that the "wrong" notes really shouldn't have been counted wrong, and that your melody is closer to the correct version than you had realized. Of course, grading Melodic Dictation is a pretty tricky thing to do both for computers and for humans. If you are convinced MacGAMUT has made a serious mistake, please contact **TechSupport@macgamut.com** with all the gory details (see **Bug reporting** below). Also be sure to include all the info listed in the box at the beginning of this **Troubleshooting** section.

• **I hate to mention it, but I'm sure MacGAMUT graded something wrong. I got the identification right, but my notation was wrong, and I still got full credit for the exercise.**

Thanks for your honesty, but MacGAMUT probably did exactly what it's supposed to do. Whenever you're not required to enter notation, MacGAMUT

will still mark your notation, but it won't count as part of your grade since it wasn't required.

Bug reporting

We take bug reports very seriously. If you find a real live bug in MacGAMUT and you're the first to report it and help us track it down, we'll reward you with a very spiffy **MacGAMUT *6*** t-shirt! Be the first in your school to have one! If you think you've found a bug, send an e-mail to **TechSupport@macgamut.com**, including as many details as you can about exactly what happened, since it's almost impossible to fix a bug we cannot duplicate. Please include all the info listed in the box at the beginning of the **Troubleshooting** section above. Don't forget to mention whether you were working on a Windows or Macintosh computer. Also, be sure to describe what you were working on, what level, what you had been working on just before the bug appeared, how long you had been working, etc. It's difficult to guess what details might be important, so the more information you send, the better. If you found the bug in the RD, MD, or HD components, and there's any possibility the bug is specific to the exercise you were working on, please copy down the rhythm, melody, or harmonic progression exercise. The fastest way to save this information is to take a snapshot of the screen. If you're on a Windows computer, hold the Alt key while you press Print Screen, then use the Paste command in the **Edit** menu of your e-mail program to paste the image into your e-mail message. If you're working on a Macintosh, use **Grab** (in the **Utilities** folder in your **Applications** folder). Double-click **Grab** to open it, and then choose Window from the **Capture** menu to take a snapshot of your MacGAMUT window. You can then attach the screen shot to your e-mail message. We do our best to find and fix any and all bugs before we send MacGAMUT software out to the world, but every now and then, something still slips by. The sooner you tell us, the sooner the problem will be fixed. Thanks for your help!