FAQ: Arrangers - Which one?

Q: Roland or another brand? (200311)
A: Members of this group have obviously chosen Roland. The reasons behind the choice are sound quality, reliability, wealth of features and music styles, full compatibility between factory styles and user styles, among others (brand attachment, for instance, has proven itself a factor not to be ignored in the group). Competition has caught up in the last few years, though, offering higher user-friendliness and rivaling quality (actual naming of alternatives would not be appropriate in here, but presently (Nov '03) many RAGgers have already acquired non-Roland arrangers or are considering a switch). The complexity of the user interface is a recognized obstacle for anyone to master Roland top arrangers ever since the E-86 was released in 1994 and followed by the E-96/G-800 and the G-1000/EM-2000 at two-year intervals. In mid-1999, this group engaged into an effort to influence Roland about the design and characteristics of future models, based on the pros and cons observed in actual usage. The group inputs were well received (see Wish List for G-Next) but no actual results were observed as a consequence. The VA-7 and VA-5 released by mid-2000 have a larger LCD display, but this was a decision already taken when we approached Roland, and other changes represented further steps *against* our suggestions (see G-1000 or VA-7/VA-76? below).

It may be relevant to record here that on January 15, 2001, Roland and Yamaha signed an agreement to make their future MIDI equipment compatible with each other's General Midi (GM) extensions (GS for Roland, XG for Yamaha) and with GM2, a new, enhanced MIDI spec. The note was brought to the attention of the group by fellow RAGger **Bob Rockwell**, who dug it out of the "What's New" page of the Yamaha Corp. website. This, besides allowing that MIDI files sound more alike in both equipment brands, will perhaps facilitate style conversions between them.

Q: G-800 or RA-800?
A: An RA-800 is a G-800 without the keyboard. It will play Midi files from the internal floppy, but an external, Midi-capable keyboard is required if you want to "play" the RA live using internal or user styles. If you just want the sound source, a Sound Canvas 88 will offer the same palette and be much cheaper. If you want to play styles and have no keyboard, get the G.

Q: G-800 or G-1000?
A: The key decision factors are price and intended use. The basic disadvantages of the 800 are the reduced disk capacity (1.44MB floppy) and slowness of loading user styles. The 1000 had the front panel simplified with respect to the 800, which complicates onstage usage (more button pushes are required for the same operations), although the 1000's quick user style load can be a major advantage for live performers. An actual 16-track sequencing capability, a real-time effects processor and a choice of auto harmonies ("melody intelligence") are also appreciated by some users.

Q: G-1000 or EM-2000?
A: The music engine and control panel are the same. The EM-2000 is self-contained and has just 61 keys, while the G-1000 requires external amp and speakers (even for home use) but has a half-weighted and wider (76 keys) keyboard. The "D-beam" feature of the EM-2000 (by which, waving a hand over a sensor on the panel can be used to control sounds and effects) looks nice but actual usefulness was not reported in the group so far (Sept. '99). A general statement is that G's are better suited for professional usage while the E's are more oriented towards home entertainment.

Q: G-1000 or VA-7/VA-76? (200311)
A: The VA-7 was released mid-2000 in Europe and did not get to the Americas until several months thereafter. It has a larger (320x240), touch-screen display which is easier to use and friendlier than the previous models'. Besides a nice fourth bank of sounds (from the SC-8850), it offers smart features like ribbon strip modulation and the Variphrase (basically the ability to use complex, pitch-shifted samples as polyphonic notes), with 48 built-in ROM choices from "na-na-na" to "woo-ah-ooh" and 16 user phrases, loadable from .wav files via Zip or by direct sampling (!). It also allows additional facilities for composing and modifying Styles by importing divisions and changing instruments. On the dark side, still more buttons were taken off the panel. Styles, Tones and Performance Memories are now all sharing the same button bank, and the user must check if the desired functionality is active before making a change. There is just one Fill-In button and no assignable pads. The SCSI port is

before making a change. There is just one Fill-in button and no assignable pads. The SCSI port is gone, which rules out external storage. Also, the VA-7 has only 61 unweighted keys. In summary, the VA-7 is great for home entertainment, but not recommendable for live gigs.

On March 8, 2001 (the very same day I submitted the previous FAQ update), RAG received the first notice about the VA-76. It was basically a VA-7 with 76 half-weighted keys and the addition of a few panel buttons that had been taken off in the move from G-1000 to VA-7. This made it slightly stage-friendlier, but still not enough, in the opinion of several members.

As of today (Nov. '03), it seems that not many RAGgers made the move from G-800/G-1000 to VAs. There are mixed feelings in the group as to whether or not the VAs are really suitable for live performances. The last "hot" threads on this subject, enriched with the participation of several knowledgeable colleagues, occurred between late February and early March, 2003, under two or three different Subject lines. Some users had a VA as their first Roland arranger and were quite enthusiastic about it. Those with previous G exposure regret the downgraded panel despite the added bells and whistles. It is now evident, unfortunately, that other brands are becoming the escape choice.

FAQ: Drawbacks

Q. Do I have to hit the keys so hard to make the solo be heard above the arranger parts? (200311)
A: This started to be a problem when Roland apparently changed the relative loudness of Realtime parts and Arranger parts in the arrangers that followed the E-86. The G-1000 received an Accomp/Keyboard balance slider that can be used to ease the problem. For the E-96/G-800/RA-800 a solution is to change the Sensitivity of Up1 and Up2 to "Medium". They are factory preset at "High". The naming is misleading, because the higher the Sensitivity, the harder you must play. Another solution is to lower the volume of the Arranger parts in the Mixer screen. As with other parameters you may want to keep constant, you should store these settings in all your Performance Memories.

Q: Why does the Tempo change when I switch Styles on the run, even if Tempo Lock is selected? (200311)
A: This must be happening as you change styles by selecting another Performance Memory (PM). If you change styles using the Style bank buttons, Tempo behaves as it should, respecting the Auto/Lock/None setting. It's an inconsistency that was reported to Roland but never corrected - not even on the VA line. Some performers (like myself) prefer to leave the PM Style "Hold" active all the time and never use PM's to switch styles. The only way to make a smooth transition from one Style to another using PM's is to store the same Tempo value in all involved PM's.

Q: Is there an easy way to toggle Arranger Hold On/Off on the G-1000?
A:This is one of the handy buttons that disappeared in the move from the G-800 to the G-1000. This function can be assigned to one of the two "Pad buttons", but this assignment must be stored into all Performance Memories if a consistent behavior is desired.

FAQ: Features

Q: Can I go from 120V to 220V or vice-versa with my keyboard? (200311)
A: Yes (for G-1000, EM-2000 and VAs), with the only change of the power cable or the use of an adapter. All these models employ a "universal" power supply that can take from 100V to 240V without having to flip switches. If you are moving between different power standards, your keyboard won't feel the change (a blessing for those who live in dual-standard countries like Brazil!).

Q: What's the difference between the OS and the CPU BIOS?
A.The BIOS (Basic Input/Output System, like in computers), is responsible for the basic handling of events like detecting keys played and button presses, controlling panel LEDs, turning on and off individual sounds, and reading/writing to floppy disk. The OS (Operating System) contains the logic behind higher-level functions, like managing internal memory, files and databases, controlling the display in graphic mode, implementing the menu structure and operations, and making the keyboard

function as a whole. The BIOS normally resides in a ROM (read-only memory) chip that can only be replaced at an authorized service shop. The OS used to be in the same situation, but in keyboards of more recent vintages that incorporate a disk drive, it resides in Flash (rewritable) ROM and can be upgraded by the user from update files made available by the manufacturer (see OS Upgrades).

Q: What functions can be assigned to the two Pad buttons on the G-1000?
A: Twelve functions in all: 1.Rotary Effect Slow/Fast; 2.Punch In/Out; 3.Metronome On/Off; 4.Count-In On/Off; 5.Tap Tempo (works also when the Arranger is playing); 6.Arranger Hold On/Off; 7.Dynamic Arranger On/Off; 8.Alternate Scale On/Off (for Up1/2); 9.Up1/2 toggle; 10.Lower 1/2 toggle; 11.Arranger/MBass toggle; 12.Standard/Piano Style toggle (for arranger chord recognition). The assignments can be stored in Performance Memories.

Q: What's a Midi Set?
A: Midi Set is a configuration you build up with the Midi parameters you can adjust in the keyboard (part-to-channel assignments, Local on/off, etc.). Roland Arrangers can store up to 8 such configurations in non-volatile internal memory (see How-To/Internal Saves and Recalls), numbered 1 to 8. These 8 stored settings are **also** referred to as a Midi Set in the manuals and in the keyboard, and this can create confusion. A Midi Set (of 8 settings) can be saved to disk, for backup purposes and in case more than 8 different Midi configurations must be preserved (see How-To/Disk Operations).

Q: Why are there two G-1000 stereo outputs?
A: You can assign (see How-To/Where in the Menu) each musical part (UP1-3, Lower, Bass, Drums etc.) to either output (but not to both!). Output 1 is the default. Output 2 is a "dry" output that bypasses all available effects (reverb, chorus, delay, EQ and insertion EFX) and the panel Volume slider. The theory is that you should use Output 2 for parts you want just external effects applied on.

FAQ: Hook-on Equipment

Arpeggiators

Q: What's an arpeggiator?
A: It's a device that accepts a chord as input (either at its own keyboard or via Midi) and converts it to an arpeggio at the output (again, as sound or as Midi notes).

Q: Can I use an arpeggiator with my keyboard?
A: Yes, in more than one way, always via Midi connections: (a) keyboard as master and arpeggiator as sound source (if it generates its own sounds); (b) arpeggiator as master (if it has its own keyboard) and keyboard as sound source; (c) keyboard as master AND sound source (requires Local Off on the control Midi channel: see TnT - "External Procedures / Hooking an Arpeggiator...).

Q: Can't I use software to arpeggiate?
A: Yes - a nice little program that does it is Arp-X8, downloadable from Technotoys *[Site still responding in Nov.'03 but apparently no longer in business since Aug. '02]*. Members have reported to have gone to bed **very** late in the evening they installed it.

Harmonizers

Q: What is exactly an harmonizer?
A: It's a piece of equipment that employs digital signal processing (DSP) techniques to sample a singer's voice and shift its pitch up or down according to preset or real-time parameters (normally Midi notes being played), in order to generate vocal harmony. Existing harmonizers can add up to four additional "singers" to a set. Some keyboards feature built-in harmonizers.

Q: How does it work?
A: Normally in one of three modes: scalic, chordal or vocoder.

- Scalic mode does not need Midi info at all. The harmonizer will derive the note being sung from the input voice signal itself and generate harmonies at chosen intervals within a panel-selected diatonic scale and key.This can be inconvenient if a song changes key or switches between Major and Minor scales, because it may require panel inputs on the run.
- In chordal mode the harmonizer needs to know the chord (i.e. simultaneous Midi notes) being played. It will then add harmonies to the input voice based on that chord information. The advantage over scalic mode is that you never get a harmony that doesn't match the current chord.
- In vocoder mode the generated harmonies are simply slaved to sustained Midi notes (you normally can specify octave shifts above or below).

Q: How good are the generated voices? (200311)

A: Group members have reported experience mostly with Digitech harmonizers and they are quite happy with their signal quality. The circuitry of early tabletop models like the VHM-5 generates some hiss, which may be inappropriate for studio recording but goes totally unnoticed in live situations. Newer generations have improved significantly on S/N ratio and quality, features, not to mention features. More recently, some members reported satisfaction also with products from TC Helicon, a joint-venture formed in 2001 between IVL and TC Electronics.

Q: How do I hook an harmonizer to my set?

A: Signalwise, it goes between the singer's microphone and the mixer (note that normally the harmonizer will have changed the vocal signal to Line level, so pay attention not to overload the mixer circuits by connecting it to a microphone input!). A control connection (if modes other than Scalic are available) can be Midi In, from which the device will take the notes and chords being played to adjust pitch shifts accordingly.

Headphones

Q: What kind of headphones are best for using with the keyboard?

A: The average group feeling is that inexpensive walkman-type headphones (e.g. Sony MDR series) have a good bass response and do the job quite well. Being open-air models, they help not missing the doorbell ring (or the wife's call for dinner served!). Earbuds are not recommended because of ear strain after extended use and less than satisfactory sound quality.

Larger storage

Q: Can I add a hard disk to my G-800/RA-800?

A: Not as such. A floppy-disk-based equipment will not talk to a hard disk, whose protocols are quite more complex. For some time, an Italian company named Lion's Tracs sold a rather expensive ($335 with 1GB capacity in Nov.'99) device called **Megafloppy**, that matched the size and connections of a standard floppy disk drive (therefore it could be installed as a replacement for any native one). Besides actually reading and writing floppy disks, the unit could hold the contents of several hundred floppies into its internal HD. Each "loaded" floppy was treated as a logically separate entity, though, and only one of them was visible to the host (or for storage/retrieval from/to the mounted diskette) at a time, via selection and command buttons at the front panel. A three-digit LED readout indicated which "virtual floppy" was active. Despite implementing a clever concept, the Megafloppy was discontinued in 2000. It was certainly less expensive than an upgrade from a G-800 to a G-1000 but, according to what has been reported, did **not** cure one of the former's biggest drawbacks - the slowness at loading user styles.

Our colleague **Bob Rockwell** is an expert in the art of disassembling and reengineering keyboards, and has written a do-it-yourself recipe to safely **getting into a G-800** to install a Megafloppy. The device is no longer sold, but you may still need to open up your keyboard to replace a battery (yes, there is one in there, like within PCs) or a disk drive. Bob recommends having a second person help you hold the top (control panel) while you work in the open unit. No hinges or such supports are provided. Here are the steps:

1. Remove two screws under left front edge.
2. Remove one similar screw under right front edge.
3. Remove six screws in a straight line across rear edge (above midi sockets, etc).
4. Approximately in line with the above six, remove a screw at each rear corner of bottom panel.
5. Approximately 6.5 inches from these corner screws remove a similar screw along each end edge of bottom panel.
6. In perfect line with these last two screws, you will find two more similar ones in a line straight across the center of the bottom panel. Remove these.
7. There are numerous other screws in bottom panel holding various components. Do **not** remove these.

After you're done, just follow the reverse order to put back the screws.

Q: Can I change the internal 100MB Zip drive to a 250MB model? (200311)
A: Our colleague **Luc Janssens** reported complete success with more than one friend's VA-7. This should probably apply also to the G-1000/EM-2000, despite the fact that these would be SCSI drives, not an IDE drive as for the VA-7. The most delicate part should be opening up the keyboards and putting everything back into the right place afterwards. Our colleague Hans Neggers has put together a nice recipe for taking apart the G-1000, then back, under Troubleshooting.

Q: Can I really hook an external SCSI drive to my G-1000/EM-2000?
A: Yes, but there are some limitations:

- The device (a hard disk, a SCSI Zip drive, a CD drive or whatever else) must have a switch or a set of jumpers that allows setting its SCSI ID to a value different from 5 or 7, which are already used internally in the keyboard's SCSI chain. A duplicate SCSI ID will block device detection and can cause the keyboard to hang in earlier OS versions. Check the availability of this ID selection feature before making a purchase. Iomega Zip drives have a small switch in the back which allows choosing either 5 or 6 as their SCSI ID. Slide it to 6 before powering up.
- The keyboard's OS won't access or format more than 1 GB in any connected drive (a big waste given current hard drive capacities).
- The keyboard won't be able to make use of files (songs or styles) at the external drive that are not catalogged at the drive's "database". This means the medium must have been initially formatted **at the keyboard** (like any Zip disk), and receive additions only via floppy, also at the keyboard. This means also, for instance, that if you have a prerecorded CD-R full of Midi files you won't be able to read them at the keyboard, even if you successfully connect a SCSI CD drive to it.

NOTE: A CD-RW is not likely to work connected to the G-1000. This medium requires special formatting and access software, which is not part of the G-1000 OS.

Q: Can I replace the Zip drive by an internal SCSI hard disk drive? (200311)
A: Yes, but just in the EM-2000 (probably also the VA-7). The G-1000 (and the VA-76), having no built-in power amplifier, lacks a +17V source in its power supply from which to derive the+12V voltage required by the HDD motor in addition to the +5V for the logic circuitry. One should keep in mind that the EM-2000 will be able to use **just the first Gigabyte** of whichever drive you install (that's the OS limit!).

Our colleague **Luchezar Georgiev** from Bulgaria was kind enough to share his knowledge with us by contributing a complete recipe. He cautions, though, that it requires technical experience and skills, being no do-it-yourself job for the average musician (as you will see!).

1. Buy an internal SCSI hard disk drive with a **50-pin connector** (newer 68-pin connectors may not work) and terminator embedded in the drive. May be second hand if in good condition.
2. Check its jumpers to make sure the terminator is enabled and that the LUN (logical unit number) is set to 5 as was the Zip drive.

~~number, is set to 0 as was the Zip drive.~~

3. Obtain four screws for the HDD with longer thread (~13 mm long instead of the usual ~8 mm - they're hard to find), and one 3 mm screw.
4. Get a 4-terminal power cable (normally used to power a floppy disk drive from the hard disk drive power connectors).
5. Get an 7812 linear voltage regulator in a TO-220 package and two 0.1uF capacitors from an electronic parts store.
6. Disassemble the instrument, remove its keyboard, remove the Zip drive mounting bracket and the drive itself from the bracket.
7. Drill a couple of holes on the mounting bracket for the new drive (necessary because of the different hole distance of the HDD).
8. Move the rubber rings and the washers from the old holes to the new ones. If necessary, remove the spring contact bracket.
9. Mount the new hard disk on the bracket. Mount the bracket with the hard disk to the chassis of the instrument.
10. Mount the 7812 on one of the holes of one of the heat sinks of the power amplifier board with the 3 mm screw.
11. Obtain +17V from the bottom of the power amplifier board (below the red wire of the connector with 2 red and 2 green wires).
12. Solder one of the capacitors between the input of the 7812 and ground, and the other between output and ground.
13. Cut the power cable so that only the big female connector remains. You may use the rest of it for its original purpose.
14. Connect the +17V wire to the input of the 7812 and the +12V (yellow) wire of the big female connector of the power cable to its output.
15. Cut the small power connector of the ZIP drive and connect its red wire to the red wire of the big female power connector.
16. Connect the two black wires (ground) of the big female power connector to the green wires of the small power connector.
17. Turn on the instrument and measure the voltage at the yellow wire of the big female power connector. It must be +12V +/- 5%.
18. Turn off the instrument. Plug the big female power connector and the 50-pin cable to the HDD. Connect the keyboard and mount it.
19. Turn on the instrument, hear how your HDD spins up, and watch how it's recognized by the EM-2000. Now full-format your new drive.
20. Turn off the instrument and assemble it back. Enjoy your new HD-based EM-2000!

A PC!!!

Q: Is it possible?

A: Yes, it has been done successfully (with a G-1000) by our colleague **Fran Carango**! The SCSI port in the back of his G-1000 was chained to a SCSI port of his PC and the PC could recognize and control the keyboard's internal Zip drive. This is no standard practice, though, and further tests should be made to make sure it is safe for a generic case. A couple of basic cautions are recommended anyway:

*   Never access the Zip from both "hosts" in a single "session" or the disk structure can be corrupted. This means, if you have used the Zip from the PC side, do not use it from the keyboard (and vice-versa) until you power both sides off and disconnect the SCSI cable.
*   Do not change styles or songs in the G-1000 Zip from the PC except with the use of Roland's Database Manager (see Support Software/Zip DB utility).

Q: How is it done?

~~A: So far, it has been done with a 250MB SCSI Zip drive chained in between, i.e., the PC and the~~

A: So far, it has been done with a 250MB SCSI Zip drive chained in between, i.e., the PC and the G-1000 were not directly connected to each other. Also, the PC in question was a notebook with an Adaptec PCMCIA SCSI interface (the scheme was not tried with a desktop SCSI interface). Fran signals the G-1000 must be on and the PC off when the connection is made. Then, the PC can be turned on. If the PC is already hooked when the G-1000 is turned on, the scan procedure will hang.

An FC-7

Q: What's an FC-7? (200311)
A: It's a Foot Controller that Roland sells to control the Arranger in their models from the E-86 to the VA-76. It has seven step-on switches that trigger the following functions: Start/Stop; Intro; Basic/Advanced; Original/Variation; Fill-In to Var; Fill-In to Orig; Ending.

Note that one "handy" :-) function (Fill to Var / Fill to Orig) is not available for the FC-7 and can only be assigned to the Footswitch.

Q: How does it work? (200311)
A: It connects to the back of the keyboard through a round 8-pin DIN connector. This is a quite common type of connector with 7 surrounding pins and one center pin. Each of the switches in the controller just makes a momentary contact between one of the surrounding pins and the center pin. The pin-to-function assignment (clockwise from the notch of the connector, looking into the socket) is:

              6 basic / advanced
              1 original / variation
              4 to variation
              2 to original
              5 intro
              3 start / stop
              7 ending
              8 common (center contact).

The odd numbering sequence is probably due to the history of DIN connectors, that may have come out initially with just 3 pins and had their original numbering preserved as models with additional pins were designed. Normally, DIN plugs will have the pin numbers embossed on it, to avoid confusion.

It is very easy to build an FC-7 equivalent with inexpensive components (it is recommended to use dustproof, bounce-free switches, though), perhaps with an improved layout -- a curved shape instead of a long straight row, for instance -- or with just the functions you really need. Thanks to **Willem Schaaij**, **Del Keeney, Hugh Barwell, Matt van Os** and **Bob Rockwell** for the research and ideas.

A No-Break

Q: Why?
A: Well, it's not really a must if you play at home, and it's more of a hook-into than a hook-on. However, if you are into live gigs, a slight power lapse can put you into an embarrassing situation in front of your audience for the 30-40 seconds of solid silence that the keyboard will take to reboot. We are so used to think that no-breaks are just for computers that this hint was highly praised by our colleague George of US Classic Country Music. Even the smallest UPS (Uninterruptible Power Supply) model from any PC retailer should be more than enough to keep your arranger safe and sound(ing) :-) through power glitches and shortages.

FAQ: How - To

Disk Operations

Q: How do I get files on floppy to appear in alphabetical order in my G-800/RA-800?
A: The G-800 displays the files in the order they are recorded in the floppy's directory entries. For a

previously blank floppy, it will be the chronological order of inclusion of the files. After files are deleted, new additions can occupy vacant directory entries and the order can become cluttered. To recover a desired order, a barebone procedure is to copy all floppy files to the hard disk, reformat the floppy and copy them all back in that order. There is a small utility program, however, that can sort and rewrite the floppy directory entries to any desired order in a snap, without the need to move any file. It is called "**DS**" (for Directory Sort) and is available at the RAG Downloads Page. Instructions for use are included in the downloadable compressed (just 22KB) archive named "**ds.zip**". Note that, same as the keyboards, this DOStime utility won't handle long filenames.

Q: How do I make a working copy of a G-1000 Zip disk?
A: You need a Zip drive on a PC to do it (even if it's a friend's, it's worth the trouble!).

Procedure A

- Format the target Zip disk **in the keyboard** (won't work if formatted at the PC!). Quick format should work; full format takes up to 20 minutes!
- Create or choose an empty temporary folder in the PC's hard disk.
- Insert the original Zip at the PC and use Windows Explorer to copy the full contents to that temporary folder (use Select All at the Zip root directory to move everything in a single step)
- Insert the target Zip drive and copy the whole temporary folder back into it, choosing "Yes to all" when prompted for confirmation on the overwriting of the existing (empty) files.
- That's it! The new Zip should be accepted by the G-1000 with no problems or slowing down.

Procedure B

An alternative also reported successful is using the "Copy Machine" utility distributed with Iomega Zip drives and choosing the "**Exact image (sector by sector)**" option. This doesn't require pre-formatting the target Zip at the keyboard but can take longer, since even empty sectors of the original disk will be all copied.

Q: How do I save a Midi Set?
A: Select "Disk" from the main menu, then "Save". Page up or down until getting to the Midi Set page. Build an 8-character name for the file on disk. Change the disk drive ("Device") if necessary. Press "Execute".

Q: How do I load a Midi Set?
A: Select "Disk" from the main menu, then "Load". Page up or down until getting to the Midi Set page. Change the disk drive ("Device") if necessary. Select the file name. Select either "All" or a single Midi Set as source, and a corresponding destination. Press "Execute".

Q: How can I copy styles from a floppy into the Zip at the PC ? (200311)
A: You can't. To add styles to a Zip, unfortunately you must go through the floppy **at the keyboard**. The style format in the Zip (.sth) is different from the one in the floppies (.stl). The copy process at the G1000 makes the conversion back and forth, besides updating the Zip style database. The EM2000 works the same.

After June '99, though, a free utility named RDBM was made available by Roland to allow managing and editing the Zip contents at a PC. See Support Software/Zip DB utility.

Internal Saves and Recalls

Q: How do I store a particular setting to all (or many) Performance Memories?
A: There is no easy way without an external PM manager utility like those mentioned under Support Software. At the keyboard, to avoid changing other settings into the existing PMs, the procedure is: first, turn off all "Hold" buttons; then, recall each PM, make the change and write it back, paying

attention to select the correct bank and number each time.

Q: How do I store/recall a Midi setting?

A: Press "Write"; enable writing to the internal memory by pressing the button indicated in the display if prompted for it; press one of the 8 Style number buttons while maintaining "Write" still pressed. The setting will be stored at the corresponding memory position.

To recall one of the 8 stored settings, select "Midi set" and press the corresponding number in the Style bank.

Playlists

This section was fully taken from a generous posting by **Frank Bertram**.

Q: How do I create a playlist of midi files in a G-1000?

A: Let's assume that all the songs reside on the Zip disk and the zip is mounted.

1. Go to the Disk Function (F5 Disk from master page)
2. Go to the Songset Function (SHIFT F2)
3. You will see the existing songsets on the left and their content on the right; press NEW (M.DRUMS)
4. Use the [BASS/BANK] knob to select a first midi file on position 1
5. Use the [ACCOMP/GROUP] knob to select a next position and repeat 4, 5 until ready
6. Use Part Select [UPPER1] to save your songset. NOTE: you can ONLY change the name of a songset on a computer, not on the G-1000.

Q: How do I play it?

A: Easy.

1. Use the DISK_LIST button
2. Press F3 Songset
3. Select the right songset using [BASS/BANK] and use [UPPER2] to load it
4. Exit from this function [F5}
5. Now Press PLAY on your recorder panel. You've just turned your G-1000 into a jukebox!

Q: Seems not to be working...

A: If it doesn't work there is possibly something wrong with your Song Set Play parameters.

1. Go to Param (F2 at the Master Page)
2. Press F1 Global
3. Use the Page function to go to Page 5
4. Try setting Song Set Play mode =Auto and Pause =0, since most midi files have an empty first bar anyway.

OS Upgrades

Q: Can I upgrade my G-800 Operating System?

A: Yes, but only at an authorized Roland service. The G-800/RA-800 operating system resides in a ROM chip (which is what gets replaced) instead of in rewritable flash memory (EPROM) like in the G-1000/EM-2000. Anyhow, the last G-800 released version seems to have been 1.02, dated Dec. '95.

Q: Where can I get upgrades to my G-1000/EM-2000/VA OS? (200311)

A: You have to download it from a suitable site. Roland sites (except perhaps Roland Germany) are normally a few months behind, and most of the time a new version is made available at some user's (someone who has a friend inside Roland) site first. One of the most complete sites concerning OS

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updates is RKCA (Roland Keyboard Club Antwerpen), managed by our colleague **Luc Janssens**. For other sources, see TnT - Web Sources/OS Upgrades.

Q: What are the changes from one version to the next? (200311)
A: This is something Roland does not publish. The first 1000s had a lot of bugs that would cause the keyboard to hang often and other problems. Version 1.02 (Jun'98) reportedly cured most problems, with version 1.03 (Aug'98?) making a more thorough cleanup. Version 1.04 (Oct'98) would cause some notes to hang in particular circumstances (like playing intros in some keys with some styles). Version 1.05 (Feb'99) fixed this and no other problems were reported in the group (*). Even so, version 1.06 (Apr'99) was released, again with no explanations, and is the last one "officially" available. A specialist at Roland Brazil informed that 1.06 has a bug in the style making area that can lead to a hang, so for style developers the best version to install seemed to be 1.05 (1.02 for the EM-2000) until Kristof Mertens from Roland BeNeLux provided our colleague Luc Janssens with an "unofficial" **Version 1.07** (around Sept'01), which he made available from his RKCA site (unfortunately, no EM-2000 counterpart for that). BTW, all **VA OS** releases are also available from RKCA, which under Luc's management has become a great source of data and information.

(*) Our colleague **Willem Schaaij** was somehow able to obtain a Roland service information report which describes the bugs corrected in G-1000 version 1.06 (therefore, the ones supposedly present in versions 1.05 G-1000/1.02 EM-2000). It is available at our Downloads page as **105bugs.zip** (compressed from PDF format).

Q: How do I upgrade my G-1000/EM-2000 OS?
A: See TnT - Beyond the Manual/Upgrading....

Where in the Menu?

Roland arrangers (at least before the VA timeframe) do not excel in the friendliness of their menu structure. If one does not use a particular feature quite often, it is easy to forget how to reach the page that controls it. The size of the display, which allows little space for each layer of the menu structure (four entries only, since the fifth is taken by "Exit"), has forced a non-intuitive implementation by Roland in many instances. I once reached for the manual in frustration, after having tried for several minutes to find the spot where I could change my G-1000 display layout back to "Expert" after having left it on "Easy" for a few days. In case you're wondering, it is within one of the pages under PARAM / NAME (!!).

This section is meant to record and help users find the menu steps down to particularly well concealed operations, either in the menu structure, like the example above, or in the manual organization.

The actual Q&A part follows the chart below, which I find useful as a memory aid (it could well be in the manual, but you know...). It applies to the G-1000/EM-2000 and can be downloaded from our Downloads page in Word 6/95 format as "**Menu1000.zip**". If a fellow member cares to prepare and send me an equivalent chart for the G-800/RA-800 or still another Roland arranger model, I'll be thankful and glad to include it. -- *The Editor.*

G-1000/EM-2000 General Menu Structure				
Menu Name	**Next level menu entries (chosen with F1-F5) / Comments**			
MASTER	Mixer	Param	Midi	UsrSt	Disk
MIXER	RTime	Arrng	Song	Effct	Exit
PARAM	Glbal	Tune	Cntrl	Name	Exit
MIDI	Rtime	Arrng	Song	NTA	Exit
(shift)	Basic	Style	Param	Sync	Exit

	(shift)	Basic	Style	Param	Sync	Exit
USRSTL		Rec	Lengt	TSign	Edit	Exit
	(shift)	Copy	Micro	Name	Utlty	Exit
DISK		Load	Save	Rname	Dlete	Exit
	(shift)	CstSt	SngSt	Utlty	Dvice	Exit
TONE		(called directly by the TONE button)				
		Bank	Numb	Var	Edit	Exit
	(shift)	Arrng	(this second page of the TONE menu is titled "SOURCE")			
VOLUME		(called by the VOLUME button or by turning any knob when in Master)				
		Glbal	Upper	Lower	Bs&Dr	Exit
ARRCHR		(called directly by the ARR CHR button. Here, F1-F4 are actual *commands*)				
		Left	Right	Whole	Off	Exit
DSKLST		(called directly by the DISK LIST button)				
		Style	Song	SngSt	Dvice	Exit
	(shift)	Rname	Dlete	NoteInput	Dvice	Exit
		(this second page of the DSKLST menu is titled "EDIT")				

Q: How do I change instruments in a Style for playback? (200311)

A: (edited from a posting by longtime member **Vallury Prabhakar**, to fit both G-800 and G-1000)
Select the TONE menu then press (shift)Arrng. Then:

1. scroll through each of the targeted arranger parts, i.e., ADR, ABS, AC1-AC6 and set them to "Prf". This ensures that the instruments don't reset to their defaults from the original style (which happens if they are set to "Arr") during playback.
2. hit (shift)Bank to recall the TONE menu. Using the Drums Part knob, scroll until you reach the first part you want to change.
3. change the instruments/kits for the desired Arranger part(s).
4. save the current settings to a Performance Memory if you want to preserve them.

It should be noted that you cannot "edit" the Arranger section Tones, i.e., modify parameters such as TVF resonance, decay, cutoff, etc. This applies only to real-time parts.

Note also that if you'd like to, say, use always just a particular Drum Kit (or Bass) through many Styles while leaving alone the other default Style instruments, you can perform the above procedure just for ADR (or ABS) and your favorite sounds will be used for all Styles until you switch to another PrfMem (with Style Hold disabled).

Additional insight to this topic was provided by RAGger **Manaso Flemming Orheim** in the specific situation of playing a VA style in a G-800:

"Play the (VA7) style from your User style location in a PM with Tone sources switched to ARR. Make sure all Divisions are played (sometimes up to 4 bars). You may have to play also the Intro and Ending divisions, because there may be other Tones on some tracks of these Divisions. You may hear nothing or only a strange drum sound during this procedure, but your G800 will store the tone Banks and some of the Tones assigned to the tracks.

"Then you switch all Tone source switches to PRF, and the work can begin. You play the style, and in each Division you specify a suitable Tone from the already chosen Bank. If a specific Tone is already chosen, you may have to change it and back again to activate it.

"You may find Styles where there are different Tones assigned to the same track, mostly in the Intros or Endings; in that case you'll have to choose the best Tone for that track in all Divisions. Save the PM, and you don't need to work upon the style directly at all.

"Of course not all Styles will sound good. Some of the VA7 tones are simply so differently played (e.g. with pitch bending), that you'll have to change to another tone Bank or even omit that track. The drum sets are sometimes difficult to handle, because it seems that some drum sets in VA7 use keys that trigger weird sounds in the G800 drum sets. But then a possibility is to use drum variation 1 or 2 instead, which sometimes avoids the problem.

"If you get used to this procedure, which also works for all the G1000 styles you can find around, I don't find it that much more work than I already do on all other styles. I have many good-sounding styles now on my G800, which come from Janssens' VA7 collection. So if you are encouraged - have fun."

Q: How can I change sounds and volumes coming out of a MIDI file playback and preserve the settings for later use ?

A: In a G-1000, you can "unlink" the MIDIfile parts from their stored assignments and make the playback use the panel choices instead. Go "MIXER" then "SONG". You'll see what MIDI channels are linked to which Parts. Select which channel you want to un-link and press the "Link On" button to link them off. Now you can save these settings in a Performance Memory or choose other sounds and/or volumes for your upper and lower parts before saving.

For this to work, the related Performance Memory must be recalled **before** starting to play the MIDI file.

Q: Can I select a Performance Memory via MIDI? (200311)

A: *[Edited from a copious posting dated May, 2001 by RAGger **Borislav Draganov**]* Yes! For the G-1000, you must send to the basic MIDI channel (which must be enabled for RX) the sequence **cc0=120 / cc32=0 / pc=<n>**, where <n> is the PM number (1 for A11, 2 for A12, 9 for A21, 65 for B11, etc.).

That's easy with an external sequencer or a PC. However, you may want to embed this sequence into a MIDI file to have it select itself the appropriate PM (in the sense of the preceding question). Clever, but not trivial. Let's say you have inserted a PM change command into MIDI channel 13 (the default G-1000 "basic" channel) at some point of a Song with a sequencer. In order to have it achieve the desired result, you must:

1. Make sure RX is ON on Channel 13 of the G-1000 (F3 Midi, Shift-F1 Basic, MBass to set RX).
2. Disable Local ON on all MIDI channels (F3 Midi, F3 Song, page down to TX and turn all Local Mode of all channels to OFF). This is to avoid note doubling that would otherwise be caused by step 4 below.
3. Save the current setup as a MIDI set for future recall so you don't have to repeat steps 1 and 2 every time (see Internal Saves and Recalls if you don't know how).
4. Patch a MIDI cable from MIDI Out B into MIDI In A (MIDI Out B is active during G-1000 MIDI playback). This is to fool the G-1000 into thinking the PM change command is coming from the "outside".
5. Play the MIDI file "with full reset" *(sic)*. It should change to the desired PM at the corresponding

beat.

6. Don't forget to disable this specific MIDI set and take off the MIDI patch cable after you're finished!

I'm not sure I have achieved an accurate editing. In his posting, Bobi suggested some knowledge of Serbian might be necessary to understand his writing :-) . Anyhow, his procedure seemed so creative ("cepidlaka"?) that I thought it must be published. -- The Editor

FAQ: Music Theory and Practice

Q: What's a "Time Signature"? (200311)
A: It's a couple of numbers that tell how many beats you have in each bar (or measure) and how "long" each beat is. A 4/4 time signature, for instance, means 4 quarter-notes per measure. A 6/8 signature means 6 eighth-notes per measure. This does not mean only that kind of notes occur; it just represents how the beats are counted in each measure. When you create a Style or a Song, one of the first steps is to define the Time Signature you will employ. It will be used, along with the chosen Tempo, to store all the recorded notes in the correct "time slots" .

Our Arrangers have four little LEDs that blink in a loop according to the Time Signature of the Style or Song being played. With Waltzes (3/4) and Two-Steps (2/4), respectively only the first 3 or 2 LEDs will blink. Some Slow Rock styles are 6/8, which would require 6 LEDs for the whole loop. As only 4 are available, Roland's workaround was to assign all beats beyond 4 to the fourth LED, so for a 6/8 Style or Song they will blink 1, 2, 3, 4, 4, 4, 1, 2, 3, 4, 4, 4, ...

Most Slow Rock styles I came across were composed as 4/4, despite their 12/8 "feel". This means the notes in it were entered as triplets (those that are scored with a little "3" above each beam in the staff), three notes for each beat. For these Styles, the 4 LEDs suffice. I once saw a Style that must have been actually assigned a 12/8 signature. The 4th LED blinked like mad.

Q: What's the difference between 8-Beat and 16-Beat Styles?
A: Both have a 4/4 time signature. Theoretically, "8-Beat" drum patterns will have "notes" that occur only in 8th-note boundaries (therefore, up to 8 "beats" per measure), while the "16-Beat" ones can occur every 16th-note in each measure. This gives 16-Beat Styles a "faster" feel. Even the best explanation does not replace actual listening to, but it may be interesting to observe that some 16-Beat styles are so named because of very few (or even a single) 16th-notes scattered along the drum pattern, commonly hi-hat hits.

Q: Backing MIDIs: are they OK? what are the pros and cons of using them instead of Styles?
A: There are RAGgers who are flatly against MIDI backing as opposed to Style backing in live performances, as a matter of principle. It's understandable, mainly for keyboardists. I don't use MIDIs myself and have a strong feeling against smarties who just pretend to be playing while a MIDI playback is doing all the job. However, let's look at the issue without prejudice.

- Style backings are ideal for when you wish to have flexibility to deviate from a fixed length arrangement, like throwing in an extra chorus or two if people are enjoying dancing, or to back an amateur singer at a party, or (of course) to play a tune that is not available as a MIDI file. Using styles requires actual playing skills and this is a factor that makes live players proud of their condition.

- MIDIfile backing is ideal for recreating the exact arrangement and feel of a well-known track (it is something the average audience likes and, to some extent, expects) which has a variety of rhythms or too many polyphonic lines to play live. It's also essential (of course) for one-man-bands where the performer justs sings or plays a solo instrument. It's best when he/she has some charisma and/or entertainer skills to complement the picture.

Our colleague **Hugh Barwell**, who plays a MIDI accordion controlling an RA-800, uses a mix of the two "modes" in his performances. I couldn't resist quoting a few paragraphs from him, as he once

made a nice synthesis of the issue in a message to RAG:

"I do a version of (excerpts from) Bohemian Rhapsody where I play the first 4 bars on the acoustic accordion, and people are visibly thinking 'How's he going to manage that tune on just an accordion?' Then, at bar 5, I kick the footswitch, and am miraculously joined by the late Freddy Mercury on grand piano. It's magic!

"I believe that the compliments I sometimes get when playing to dedicated files are due to the more accurate re-creation of the original accompaniment. But since I only use them for songs which are musically very special and unsuitable for styles, it is hard to be sure. If I had to play to dedicated files all evening, I would feel like a disk jockey. I appreciate both modes and all their variants."

Q: To Read or not to Read? (200311)

A: Opinions are divided in the group. Several superbly worded viewpoints were exchanged in a very interesting (and passionate!) thread baptized "Apres-Midi" that attracted some 20 postings in March 2002. Most contributions deserved to be quoted in full, but that would be impractical. To avoid being unfair to anybody, I had to summarize.

Most participants agree in that the ability to read music is important, though not essential if your main goal is entertainment for yourself or for an audience. Sight reading requires extensive practice, and it is of course a must if your musical responsibilities include performing on the spot pieces you're not familiar with. On the other hand, the ability to play by ear with no sheet music support is a gift to be praised, even by those who have mastered sight-reading.

The bottom line (the most unanimous viewpoint through the whole thread, expressed in different ways) is, if your heart is content with the way you do your music, you're doing it the right way.

FAQ: Troubleshooting

Q: Why can't I read or write to a floppy disk at the keyboard? (200311)

A: One of three situations can be occurring:

a. you have a bad floppy disk (replace it by another and, if it works, that was it);
b. your floppy drive has dirty heads (there are floppy head cleaners you can try);
c. your floppy drive is malfunctioning (under warranty, take your keyboard to a Roland rep; if the warranty has run out, you'll need to purchase a replacement drive; see the next question).

Q: Can't I substitute a regular PC floppy drive for the keyboard's drive? (200311)

A: No. Roland employs an "enhanced" floppy drive in their arrangers, capable of doing things like signaling a disk insertion to the keyboard and continually spinning even when not being accessed. Although the drive connections appear identical to the PC's, there seems to be different wirings and additional signals used by the keyboard. Previous information in this topic listed a Chinon drive as a possible replacement, but the reliable testimony of our colleagues **Alan Davidson** and **Luke O'Malley** assured the group that the only working option for RA-800/G-800/E-500 is Panasonic (P/N JU-257A 166P). It should work also for G-600 but some dip switches on the drive may need to be set differently from their factory defaults. For the G-1000, the model is Panasonic JU-257A 786P (confirmed by **Frank Marsh**, whose drive label read also "Matsushita F3829" in brackets). These drives should cost more than regular PC floppies, but if one can get them directly from Panasonic it might be cheaper than going through Roland (up to $300 as reported in the group).

Q: Why do I get a "too many tracks" message when trying to play a Midi file?

A: Standard Midi Files (SMF) come in two flavors: Format 0 (single track) and Format 1 (multiple tracks). Tracks are not the same as Midi channels, being related mostly to sequencer architecture. Format 0 has all Midi channels in a single track, while Format 1 has multiple tracks (normally one Midi channel per track). Most Midi pieces effectively employ no more than 16 tracks, since this is the

maximum number of simultaneous Midi channels, but sometimes an SMF will have one or more extra tracks. These tracks normally carry just text information and no Midi data, but their presence can confuse the SMF player. Opening the file with Cakewalk or other sequencer will show the situation and allow removal of the unneeded tracks, or conversion of the file to Format 0. Either will cure the problem. The G-800 seems to have a higher tolerance than the G-1000 to a number of tracks above 16, but is not immune to this problem as I originally reported.

Q: Why has my display gone blank?

A: Before calling for service, check the display contrast knob in the back of G-800 or G-1000. Being out of sight and seldom needed, it is easy to even forget its existence. A kid may have tweaked it while you were not looking, or your finger may have accidentally turned it while inserting or pulling out cables.

Q: Why is this key not responding to velocity?

A: You should be having a bad contact underneath the key, due to dust buildup, or a part snapping out of place. Our colleague **Hans Neggers** had this exact problem and was able to fix it himself by cleaning the contacts. He had to open up his G-1000 for that and was kind enough as to share his learnings with us. His **recipe to take the G-1000 apart** follows. Steps 6-11 are specific for cleaning the key contacts, but the rest can serve the general purpose.

1. Put the G1000 upside down on a soft surface (I used the pillows from my bed!)
2. Mark the black screwholes (there are 2 kind of screws used for mounting the upper and lower part of the G1000)
3. Unscrew ALL screws visible on the backside (also the 2 screws in the ZIPdrive)
4. Turn the G1000 upright, taking care to keep upper and lower parts firmly together (this is best achieved doing with 2 persons)
5. Take the upper side off carefully, minding not to damage the cables/wires between top and bottom parts.
6. Unscrew the 2 screws left and right of the keys, carefully take the cable of the aftertouch on the left from its connector (this connector fits only in one way), lift the keys and take of the two flatcables on the underside. MARK on what side the red marked side of the flatcable is connected.
7. Take out the keys and put them upside down.
8. Unscrew the printboard on the side where the malfunctioning key is.
9. Take out the printboard, and gently pull of the rubber strip.
10. Clean the contacts on the printboard and the contacts in the strip with strong alchohol.
11. Re-assemble the G1000 the other way around. First the rubber strip back on the printboard (carefully putting the rubber pins back in the corresponding holes on the printboard, press them in well). Mount the printboard on the back of the keys. Reconnect the 2 flatcables and the aftertouch cable to the keys, and put the 2 screws left and right of the keys in place.
12. Gently place the cover on the G1000, take firm grasp in upper- and bottom part and turn the G1000 upside down. Put all screws back in place (don't forget the ZIPdrive), and put the G1000 'back on its feet' again.

Tip: work carefully and don't be hasty. Take good note of the things you do, so you can perform everything backwards when re-assembling the G1000. Good luck!

FAQ: Wish List for "G-Next" (200311) *This is now obsolete as a FAQ topic, but was kept here to preserve the memory of a RAG "saga". -- The Editor.*

In the second quarter of 1999 the group members were seeking a technical contact within Roland, with whom an interaction could be carried about limitations and shortcomings they experienced with their keyboards, and the ideas about improvements that future models could offer. However, all Roland offices approached in several countries ignored the attempted contacts, when not flatly turning them down. A trace of hope appeared when Luiz Carlos Uhlik, a keyboard specialist from Roland Brazil, responded positively to our intention and raised the possibility to convey our suggestions to

Roland Italy, where the G's are designed and built.

A compilation of members' postings carried by our listmaster **Bob Richie** was then consolidated into a list of suggestions that I sent to Uhlik on June 30. His first response was sympathetic to most points but somehow doubtful or unclear to others. Also, although he praised our input as a consistent and valuable contribution, and assured he would pass it on to the designers, he was not specific about its actual or potential effect upon the company's actions. Subsequent contacts with Uhlik requesting a revised or more specific feedback were attempted until late September but did not, unfortunately, add anything tangible. He did confirm he had been at Roland Italy in August and carried our input to the design team, but said he could not disclose the company's plans.

[*Paragraph added March 2001*] A second attempt to find a listening ear at Roland was carried by **Luc Janssens** in December 1999, in contact with Bart Meyvis from Roland BeNeLux. Bart took our wish list to Roland Italy but never got a feedback to provide us. In early 2000 he was assigned to sales and replaced by Kristof Mertens who promised to follow up, but also got nothing back from Italy.

The three first sections below constitute an edited, for-the-record transcription of the report that I posted to the group after the first response by Roland Brazil. The fourth section lists additional members' wishes and complaints posted to the group after Sept. '99 and getting at least two supporting responses. It did not really grow long. A few months thereafter the VA-7 was announced, and unfortunately our suggestions seemed to have played no role in its design - indeed, some changes represented moves **against** them, like taking off still more panel buttons. In the last three years, Roland's trend concerning their new models suggests that an actual G-next, with all the features we dreamed of, will remain just a dream.

<p style="text-align:center; color:red;">Despite this being a FAQ chapter, I considered more appropriate to edit the entries herein as Topic&Rationale instead of Q&A. Some topics may be self-evident, and the rationale not necessary.
Roland's response (in the first three sections) is in italics. -- The Editor.</p>

1. Filed Complaints

1.a - G-1000: Loss of the "Bank" buttons, as well as separate Tones and Performance Memory banks

The "Bank" buttons as available in the G-800 facilitated navigation among Tones and Styles within the same bank. With the 1000, at least two strokes are required for any change. Even worse was the unification of the Tone and PM banks, which now require much more attention to avoid embarrassing (especially in live performances) mistakes.
According to Uhlik, this was mainly a cost issue. He seemed not very sensitive to the increased difficulty in stage use. Future keyboard generations should have less and less buttons; an alternative approach shall take over. He was intentionally vague, with a bit of humor, but I understood a touchscreen display is being considered for G-next. Throughout his message, he made several mentions to the E-600, which I haven't seen yet and which apparently has that feature already, beside a larger display.

1.b - Weird Transpose approach (unavailability of a "zero" setting that can be stepped through)

There is no friendly way to know the current Transpose setting. One can disable it, but cannot confidently set it to, say, +2, without paging through the menu structure or mentally taking the difference between the played and the displayed chord to derive the current setting before making the change. On a Yamaha, one can just press Up and Down simultaneously to zero the setting and then press Up twice. Not on a Roland. Besides, if one uses the Transpose feature to play some of those songs that go up one semitone at a time, stepping across "zero" is a hassle.
Uhlik suggested the use of Performance Memories. Guess the point was not fully understood. I detailed a bit more the issue in my second message to him, but he did not respond to it.

1.c - Inconsistent Tempo Lock/Auto behavior when switching Styles via PM

See FAQ - Drawbacks on this topic.

See ~~FAQ - Drawbacks~~ on this topic.
Here again apparently the point was not caught. Uhlik said he saw nothing wrong. I got to explain this specific point to him over the phone and he said he would check it, but did not address the issue in subsequent contacts by e-mail.

2. Suggested Improvements

2.a - Bigger display
Uhlik says Roland is working on new display for G-next but the emphasis will not be on size due to cost considerations. My guess is the E-600 display, said to be 2.5 times larger than the 800/1000/2000's at 320x128 (but still half the size of a PSR-8000/KN-5000/i30's), will be employed in G-next. I replied to him that our concern is not with the size itself, but with the functionality constraints of a display whose design is six years old. He did not argue back.

2.b - More intuitive menu structure
See FAQ - Where in the Menu?
Uhlik agrees the G's require "a training at NASA" to be mastered in that respect. Said Roland is working on a friendlier menu (perhaps in connection with the new display).

2.c - Sturdier button construction
Mainly for buttons used all the time, like the Fill-ins.
He says some wear is normal after extended use, but the function should not fail. He gave the impression that this would be a point of special concern to Roland if confirmed.

2.d - A "Hold" function for EQ+effects
Different gig locations may require different settings, but it is not practical to copy the adequate EQ+effect parameters to all intended Performance Memories before a gig.
He liked the idea and took note of it, but gave no perspectives for implementation.

3. Insinuated Conveniences

3.a - Additional fill-in divisions (Orig-to-Orig and Var-to-Var)
The "Fill-in to Previous" button was a good try, but it is really not the same.
Uhlik mentioned the E-600 has something similar if not equivalent, although he was not enthusiastic about it.

3.b - Ability to load samples for Tones and Drums
Here he informed that there is an agreement among factories against including sampling capability into arranger-type keyboards. However, he pointed out that the agreement applied to sequencing capability as well and this aspect has been broken, so who knows? Anyhow, no plans about this exist for the near future.

3.c - Pad buttons for effects and phrase fill-ins
There were 8 such assignable buttons in the E-70; they were reduced to 2 in the E-86 and disappeared thereafter.
Once again Uhlik signaled the E-600 (seems to be quite innovative a machine), but said nothing concrete about the possibility of placing them on the G line He also pointed out that he personally thought a keyboard split was a better way to insert effects and drums.

3.d - More control options in Drum Variations
Like selecting which instruments are affected in each Variation.
He said it is feasible, but once again no promises.

3.e - Possibility of combining more than one Drum Kit in a User Style.
Also "feasible", with no further comments.
[N.E.: This possibility was later found to actually exist by RAGger Vallury Prabhakar, using an ~~undocumented procedure~~.]

undocumented procedure.]

3.f - More parameters assignable to Aftertouch control
Also "feasible", with no further comments.

3.g - A lighter construction
Carrying a G-800/G-1000 around is a challenge in itself.
That will depend on technology and cost of materials. No guesses.

4. Additional Complaints and Ideas

The brackets at the beginning of each topic indicate which arranger models are affected.

4.1 - [800/1000/2000] Would like to be able to select which Variation comes up by default when a Tone is selected (youtiem@yahoo.com, 04/Oct/99).
- An alternative is to store your favorite Tones into PMs and use them to select Tones instead (aguirre@sid.inpe.br, 05/Oct/99)

4.2 - [1000/2000] The default display when pressing "Disk List" could be Styles instead of Songs (TomTomSF@aol.com, 05/Oct/99).

4.3 - [96/800] The power-up configuration could be a grand piano instead of a split keyboard with a Style ready to blast off when a key is touched in the lower part (Steenderen@hetnet.nl, 21/Mar/00).
- A workaround: I store my desired power-up configuration into PM C88. This way, when I turn on my keyboard, I press one button (the down arrow for performance memory selection) once, and I have my grand piano! With a bit of use, this step becomes second nature (Delkeen@hydrosoft.net, 21/Mar/00).

TnT: Existing or Dreamed-of Support Software (whole section revised 200311)
This section was originally a FAQ topic to record hints, comments and ideas about PC utilities that are (or could be) useful for a better utilization or management of our arrangers. As some of them eventually turned into actual software, I moved the section in here as a Tips'n'Tricks chapter. -- *The Editor.*

- *An editor that allowed managing the Zip Style and Song databases at the PC.*

In June '99 Roland made available its **RDBM** (Roland DataBase Manager) freeware, which allows all these operations to be carried in a much easier fashion by those having a Zip-equipped PC. The latest version so far (Nov. 2003) is 1.5, released around Sept. 2001, good for all keyboards models from G-1000 to VA-76, and can be downloaded from Roland Italy . This version, which handles "Music Assistant" features for the VA series, is bigger than 6MB. If you don't need all that, Luc Janssens' RKCA site still has Version 1.4, at less than 250KB.

RDBM, despite facilitating enormously the tasks of adding/deleting/renaming the Roland Zip files, seems not to be too straightforward to use. Therefore, our colleague **Frank Bertram** provided still another generous contribution to the group with the "RDBM Manual" that follows. It was made for a G-1000, but to some extent it applies also for VA keyboards.

Here is a **step by step approach** on how to Edit a G-1000 Zip disk on a PC. You'll need:

- Roland Database Manager (RDBM) installed on your PC;
- an Iomega Zip drive installed on your PC. This drive should be up and running before you even try this, so make sure you can access the device.
- a G-1000 (or EM-2000) keyboard ("never take anything for granted");
- a Zip disk **formatted at the keyboard** (nothing will work otherwise!)

- a Zip disk **formatted at the keyboard** (nothing will work otherwise!)
    - If you want to edit the Zip disk currently in the keyboard, take it out: start up the G-1000, press F5-Disk/ DEVICE/ UNMOUNT/ EXECUTE/ and press the release button on the Zip drive.
    - If you will use a blank or spare disk, Format it first: Press F5-Disk/ SHIFT F3-Utility/ F3-Format/ Turn the knob to ID5/PROCEED/QUICK FORMAT (I always use Quick Format. The Full format should only be used on non-formatted disks (I have never seen one) or in case you suspect corruption). *[This will take 1-2 minutes.]* Take out the disk (see previous bullet).
- some Styles or Midi files from floppy to have some sample data to experiment with.

Then:

1. **Insert the disk** into the Zip drive on the PC. Have a look at the file structure using Windows Explorer or something of that nature;
2. **Start** Roland Database Manager;
3. **Load the contents of the Zip disk** into the RDBM database: FILE/IMPORT/ <drive letter of the Zip disk> (F: in my case); switch ON "Song Database" and "Style Database" (unless you know what you are doing!); leave OFF "Music Assistant Database" (this is only for the VAs); click OK. This will take some time (5-15 minutes) depending on the number of Styles/Midi files on the disk and depending on your configuration. The external Zip Plus is VERY slow.
4. Once this process is completed you will find that you have two databases, one with the styles and one with the midi-files (songs). The databases will be named Rdbm2 and Rdbm3 or something alike. You may prefer to **consolidate the two databases** to one: Select Rdbm2/EDIT SELECT ALL/EDIT COPY... Select Rdbm3/ EDIT PASTE.
5. Now **save the database** to the hard disk on your PC: FILE/SAVE or FILE/SAVE As... .
6. Now you can **Edit the database** by deleting styles/songs from it, but more likely you will want to add songs/styles. You can do this using FILE/ADD (Select Mid for Midi files, STL for styles, or STH for styles from another Zip). Select the file names and Click on OPEN. Do NOT forget to save the database every now and then.
7. Once the editing is ready, you can **write the database to the Zip disk** again: use FILE/EXPORT, select the drive letter (F: in my case) and click Export. *N.B.: this is a destructive process;it will OVERWRITE your zip disk, so you may want to use an empty disk (formatted on the G-1000).* This again might take some time depending on the number of files.
8. Now **close** down RDBM. You may want to have a look into the Zip disk here using Windows Explorer.
9. **Insert** the disk in your G-1000 and **mount** it (F5-Disk/DEVICE/SCAN)
10. Now use the disk as usual and do not forget to **enjoy** it!

Here are some valuable extra hints provided recently by **Mike Walker.**

a. Always **save a backup copy** of the zip disk to an appropriate place on you PC before starting work with it using RDBM. Create a directory on the PC with a suitable name ("Roland Zip Backup", or whatever). Open this directory in Windows Explorer (as opposed to Internet Explorer). Then open up the Zip disk via "My Computer" so you can see the directories (and some files) on it. Select all directories & files in the Zip disk, then copy the whole contents by drag and drop to your selected backup directory in the Windows Explorer window.
b. When doing this backup process for a second & subsequent times, remember to **clear out the existing backup** data from your backup directory first. If you don't, there is the possibility of midifiles & other data from an earlier incarnation of you zip disk remaining in the backup set even though you have deleted the midifiles (or whatever) on the keyboard itself.
c. **Make sure that the PC Zip drive has finished writing** the new database file before trying to remove the zip disk. RDBM will report that it has finished writing to the drive A LONG TIME BEFORE THE DRIVE ITSELF HAS FINISHED THE JOB. Make sure the flashing light on the drive has actually gone out - it seems to stay on continuously for a long(ish) time, then flash a 3 or 4 times briefly at the end of doing what it does, before finally stopping. If you take the disk out

early, the data on it will be trashed.

d. Certain versions of Windows - XP in particular - have built-in drivers for Zip drives and will recognize one as soon as it is added to the PC. BE WARNED - **do not rely on the native Windows drivers**. Get the latest Iomega driver & utility software (called "IomegaWare") from Iomega's website and load it onto your PC. There is something wrong with the Windows drivers which the Iomega version fixes. Failure to heed this warning will almost certainly result in lost or trashed data when you write back to the disk! I have had this happen on an "XP Home Edition" machine, and the same may be true of other versions of Windows also - so play safe.

e. If you are using an internal Zip drive, as opposed to a portable plug-in type, **use the software "Eject Disk" command** to extract the zip from the drive (assuming it exists in the version of Windows/IomegaWare that you are using - earlier versions may not have this). DO NOT use the front panel button on the drive to eject the disk. If you do, you may end up with lost or trashed data. The "Eject" command can be found by right-clicking on the Zip drive icon in "My Computer". A short list of options will appear, "Eject Disk" among them.

- A tool to help produce *custom Database listings* from the Zip disk.

In April, 1999, I contributed to RAG a very simple tool (**GKstlDB**) which read the *stldatab.dat* file in the G-1000 Zip disk and created a four-column text file on disk. This file could be then imported into standard applications such as Word, Excel or Access so that users could produce custom listings of their styles on Zip. A few weeks (!) thereafter, Roland came up with RDBM (see previous topic), which seemed to sentence my little utility to oblivion.

Nevertheless, in March 2002 our colleague Jamu felt the need for a Song equivalent of GKstlDB, so he could play in Excel with his Midifile list. I then produced **GKsngDB**, which I never submitted to the Downloads page but distributed to a few RAGgers who expressed interest in it.

Recently (July, 2003) RAGger Luc Janssens, a VA owner, reported that RDBM still has limitations as to print out the Zip database contents in a format different from the default (e.g. Songname first, then Author, then Filename). This motivated me for a revival of GKstlDB and GKsngDB, which I then adapted to be compatible also with VA Zips and contributed as **StyleDBex** and **SongDBex** for download from RKCA, which is managed by Luc. Again, what they do is generate formatted text files directly from the Zip Style and Song databases (no RDBM intervention necessary), which can then be imported into standard applications to produce customized listings and reports. Instructions are included within the zipped files.

- Utilities that allowed editing (or at least listing) the contents of a keyboard's *Performance Memories (AKA User Programs)*.

For long this was just a dream, but on February, 2000 the topic was casually resurrected as a discussion topic, then RAGger **Okan Altug** volunteered to write a utility, then in short time the subject took over the group. Several people began contributing ideas and suggestions, typing in Tones and Styles lists and using Hex editors to share the work of breaking up the guts of the ".ups" files for different keyboard models. No trivial task, as any of the participants can testify. It became much easier after **Peter Brand**, another fellow RAGger, contributed a small utility named **UPSsplit**, that automated most of the change-tracking operations required to map individual parameters in the file. Okan's prototype was released in March 2000, oriented towards the G-800. Several versions quickly followed, incorporating corrections and added features, and before year's end other arranger models (G-1000, EM-2000, G-600 and E-96) were also taken care of. The program is known as **UPMRoland** and the different versions are named **UPM<*model*>**. "UPM" stands for User Program Manager (User Programs is how Performance Memories were originally called). Okan's masterpiece can be downloaded from the RAG site or from RKCA.

A VA version was expected for some time in the future. After seeing UPMG1000 in operation, Roland BeNeLux got interested and promised to help getting us documentation on their VA-7 ups format (renamed "uva") to support the effort. Months thereafter (Feb. 2001), a document was finally provided, but it was far too cryptic and incomplete. An example of ups format description as documented by the G-1000 ups research team was then handed to Roland to illustrate what was expected as an input.

About a month later (shortly after the previous FAQ update), a second document was provided. This one was much better, but still did not include any info on the contents of the huge UVA Header. By that time, Okan's commitments were already preventing him from dedicating time to the project (which caused him to drop the shareware fee and turn UPMRoland into freeware a few months later), and unfortunately no further progress was achieved or is foreseen on the issue. Anyhow, at least VAs seem to feature a friendlier native interface to their Performance Memories than the G's.

Another software, targeted at easily combining individual PMs into custom .ups's, was also developed by **Peter Brand** as freeware and named **UPSCompose**. Peter kept it available for download until he shut down his site by mid-2002.

RAGger **Silvano Marucco** also produced a software that allows dragging-and-dropping of individual PMs from "input" ups files into an "output" ups. It's a beta version and handles only G-1000 ups's, but is available from the RAG Downloads page as "**Entropia UPS Tool.exe**" (just 36KB).

Another longtime member, **Kim Winther**, created in April, 2001 and made available at his site a freeware named **GPC** (for Global Performance Change), targeted at the G-1000 and capable of making block changes to all PMs in a single shot (useful, for instance, for copying the same Equalizer settings all over). Besides, it can export some of the PM contents to Excel.

- A user-friendly *Style Generator/Converter*.

Despite the improvements introduced since the E-86, making up a Style at the keyboard is still considered a hassle by most users (maybe less so for the VAs, but still there is no positive indication of that in the RAG exchanges). EMC's **StyleWorks**, which for some time was reported as buggy and incomplete, seems to have achieved a good level of user satisfaction both in features and support. It is still expensive, though, and the high cost/benefit ratio prevented it from being widely adopted. It comes either as a single-brand (Roland, Yamaha, Korg, Sutron...) version, which advertises style conversion from any other brand to the target one, or as the "Universal", which converts between any two brands. According to members' experience, conversions may require some further "tweaking" (adjusting track volumes, correcting a few notes in Intro and Ending sections, etc.), but they do the job. StyleWorks is available from the EMC site.

As for ideas, nice possibilities would be style conversion tools from Band-in-the Box or Jammer Pro to the native Roland Style format.

- A *Style Listener*.

The multitude of styles available from the Internet poses the not-so-trivial problem of evaluating them to tell the weed from the wheat. Loading every style into the keyboard for auditioning is a hassle, and a "style listening" tool has been a recurrent wish in RAG. Roland never published its style format so that independent users could write such a utility. Again, EMC's **StyleWorks** (see previous topic) is the only known software that handles Roland styles in a PC. Its downloadable Demo version can be used for auditioning styles through the PC's soundboard at no cost - the only disabled capability is Saving. The audition feature is very basic (no chord changes or section chaining), but can be of help in a first round of style selection.

TnT: Beyond the Manual

Styles from MIDI files at the G-1000/EM-2000 (200311)
Yes, the G-1000/EM-2000 can create Styles from MIDI files, much the same as StyleWorks, although with a quite less glamourous interface. It is almost an "undocumented feature", as it is not described nor mentioned in Chapter 12 (Programming User Styles) of the User manual. Instead, it was included (concealed?) at the back of Chapter 11 (Song Tools), under the misleading Section name "Style Converter" (11.2). Moreover, this Section name was inadvertently (?) left out of the Manual's Table of Contents (at least in the English and Brazilian versions)! Besides these obstacles in being found, the section is badly organized and unclear even about its very purpose. I guess even Roland realized the extent of the mess, and published a surprisingly good Supplemental Note (SN94) in October, 1998, covering Stylemaking on the G-1000.

This topic was edited from that Note (no longer on-line, unfortunately), a Feb.'02 contribution by RAGger **Sonny Gasson**, that helped fill in a few little gaps still left open in the Note, and some experimentation. Here is a step-by-step procedure, simplified a bit to encourage first-time users and with some explanations added to help them understand what's going on. Bells and whistles can be increasingly added as one masters the concepts and basic steps of stylemaking.

1. If not resuming a previous Style Creation session, clear the User Style memory (D88) by pressing F4 [Utility], then Shift-F2 [Delete], then UPPER 1 [Execute]. Press F5 [Exit] when finished.

2. Press UP and DOWN simultaneously (under Performance Memory) to clear the panel settings.

3. Insert a disk with the selected SMF (pick one not too busy on chord changes to practice) and press DISK LIST. The Song list in the disk will be displayed.

4. Select the desired Song using the BASS/BANK knob, then press PLAY/STOP under Recorder to begin playback.

5. Choose and write down the initial and final bar numbers (as displayed during playback) of each of the sections that correspond to the Divisions (Intro, Orig, Var, Fill to Orig, Fill to Var and Ending) you want to include in your Style. You may have to repeat the playback a few times to complete this step. If you have the bar numbers already, let the song play for at least a few measures (enough to get the whole file loaded into memory). Press PLAY/STOP to stop.

6. Press SONG TOOLS (screen will change) then M DRUMS [16-Track Sequencer]. "Executing…" will appear. When finished, press F2 [StyleConversion]. You'll be in the SETUP screen. Press LOWER 1 [Reset] to load default General Midi settings into the parts-to-tracks assignments (Channel 10 to Drums, Channel 2 to Bass etc.). You will need to change them (with the UPPER/VARIATION and DRUMS/PART knobs) only if the chosen Song employs non-standard assignments (very unlikely).

7. Page down to FROM 1 to select the tracks you want to include into the Style. Note that only non-empty tracks with have little squares around their numbers. Turn the DRUMS/PART knob fully clockwise to select "ALL". This will make the procedure much shorter (you can delete a Style track later if necessary). Note that only the channels that correspond to Style tracks will be highlighted. Solo tracks will be left out (if the Song adheres to GM standards).

8. Page down again to FROM 2.

9. Enter the range of bars of the song from which you will extract the next Division to be added to the Style (from step 5). Use the DRUMS/PART knob to select "From" or "To" and the ACCOMP/GROUP knob to set the Bar numbers. Contrary to Roland literature, the "To" entry must be set to one bar after the final bar of the range, as the "To" bar is not included in the defined section. A one-bar Fill section picked at bar **n** of the Song, for instance, should have From=**n** and To=**n+1**. *NOTE: most Intros will effectively start at bar 2. Bar 1 normally contains just setup settings (tempo, instruments, volumes, effects, etc.). Do not include it in your Intro range if so.*

10. Audition the chosen section by pressing LOWER 1 (you'll see that the playback loops back right before the "To" bar) and figure out the section's Key and Mode (major, minor or seventh). Playing along at the keyboard may help with that. *NOTE: except for Intro and Ending, chord or mode changes should not occur within that section, or they will be accordingly forced when using the Style. If necessary, try other From/To settings, narrowing perhaps the section to just one bar. If at all impossible to find a suitable single-chord section, then the easiest solution is to modify the Song itself with a software sequencer (Cakewalk, Cubase...) before using it in this procedure, to produce the necessary well-behaved sections. If you don't have a PC, you can still edit the Bass and Acc notes of a section on the spot with the keyboard's Microscope Editor (covered in the User manual under 12.8 - but take a deep breath first!).*

11. Page down again to TO.

12. Select with the DRUMS/PART knob, the Key of that section and with the ACCOMP/GROUP knob, its Mode. The G-1000 needs this info to correctly transpose the section to the key of C major, upon which all Styles are built. Choose **M=m=7** if the section mode is Major, **m=M=7** if Minor, and **7=M=m** if Seventh. This should correctly apply the section patterns to all Modes played when using the Style.

13. Select with the BASS/BANK knob, the Type (Basic or Advanced). Choose **B=A** if you don't intend to choose and convert a different Song section for each Type.

14. Select with the LOWER/NUMBER knob, the Style Division into which the selected section should go. The available **Xx=Yy** options allow building the two indicated Divisions in a single operation, but then both will sound exactly the same when using the Style, which may not be what you want (**Or=Va**, for instance, would make the Style quite boring, as verse and bridge would come out identical; **Fo=Fv** may be less of a problem, but the transition can result strange for one of the senses if Original and Variation differ much in mood; **In=Ed** would seldom make any sense, as an Ending is supposed to conclude the Song while an Intro should lead into it).

15. Press UPPER 1 [Execute] to start the conversion, and wait for it to finish. It can take a while or a section with busy tracks and more than a couple of bars long.

16. Page up to FROM 2 and repeat steps 9-16 for all intended Divisions.

17. Press F5 to Exit from the Style Conversion context, then GM/GS to leave Sequencer mode. You will get a screen suggesting to save the Style. Select YES. The User Style Save screen will be displayed.

18. Change the Style name from its "USERSTL" default using the UPPER 1 and UPPER 2 buttons and the knobs above them. You may also change the destination device (Zip or Floppy). When finished, press M BASS [Execute]. Done!

You can now load and use the new Style as any other in the disk, and further modify it, either by redoing the appropriate steps above with the Style previously loaded (skip Step 1 in that case), or following other Style Edit procedures that are described in the User manual. Enjoy!

Multi-DrumKit Styles (200311)

Our longtime colleague **Vallury Prabhakar** is probably the most prolific Roland Style creator in RAG, with more than a thousand "exclusives" generated over the years to fulfill his needs for ethnic and special time-signature styles. And he did that on his G-800! He assures it is not difficult, after getting used to it. The biggest drawback he felt for a long time was the inability to mix more than one drumkit on styles.

However, in October, 2002 he tried Microscope-editing a Style and inserting a Program Change event (c00+c32+PC) at a specific bar/beat/cpt of the Drums track (just before where he wanted a different Drumkit sound), and it worked OK for the drum notes that followed, up to the end of the Division, when the Style loops back and restores the "nominal" kit. Of course, if one wants to mix notes from alternating kits, several such PC events will have to be inserted, which can make the process quite laborious. StyleWorks won't help, as it handles a single PC assignment per Division. But Vallury demonstrated that the feat is possible!

Although I believe not many RAGgers will have Vallury's urge for multi-drumkit styles, this possibility is worth recording, as it is certainly way "beyond the manual" :-) .

Aftertouch - some background and hints

Aftertouch is a feature offered by high-end keyboards, by which an extra force applied to the keys after they are played (and before they are released) triggers one or more effects. There are two aftertouch flavors: Channel and Polyphonic. The latter responds to pressure changes on each individual key and applies the effect(s) independently to the corresponding note, therefore it's "Polyphonic". The former senses the combined pressure on the played note(s) and applies the effect(s) to all notes as a whole. In fact, only notes being played in the Midi channel for which Aftertouch was activated are affected. For instance, notes being played as Lower 1 will not be affected by an aftertouch event on Upper1. That's the reason for the "Channel" name. The concept may be easier to understand if we think of it as "Part" Aftertouch. That's the aftertouch kind that comes with the G-1000, EM-2000 and VA-5/-7/-76. Earlier models offered no aftertouch implementation.

Most commonly, aftertouch is set to control parameters like volume, pitch and modulation, allowing the user to mimic the use of an expression pedal or the pitch bend and the modulation levers without an actual pedal, and without having to take one hand off the keyboard. The mentioned Roland

arrangers so far allow control of 11 parameters independently for each of the Parts Upper1, Upper2, Lower1 and Lower2. In addition, they allow also that the Arranger responds to aftertouch with one of the options below:

- alternating between Basic and Advanced
- alternating between Original and Variation
- Fill-in to Var / Fill-in to Orig *(probably the most useful choice)*
- Fill-in to Previous
- Intro (when the Arranger is stopped) / Ending (when it's playing).

Most unfortunately, an aftertouch event on any Part will trigger also the Arranger response if it's active. It would be much better if the Arranger responded to aftertouch only in the chord recognition region, so that right-hand events would not affect the Arranger. In practice, this limits aftertouch usage to control either the Arranger or the Realtime parts.

Examples of simple aftertouch usage on Realtime parts can be:

- modulating a Sax sound (tweaking LF01 Rate and LF01 Pitch)
- pitching down a Harmonica part (using Pitch with a small negative value)
- momentarily increasing the volume of an Organ sound (using Amplitude; note that this will work only if the Part volume is set lower than 127; aftertouch cannot drive it above 127).

Aftertouch configurations can be saved into Performance Memories for future recall. More sophisticated results can be created by layering Up1 and Up2 with different effects, playing with the sound brilliance (TVF Cutoff) and experimenting with the LF02 parameters for sounds which employ it. The keyboard aftertouch interface is a bit overwhelming to use, and this has discouraged many a user from using it at all. It starts with F2/Param, then F3/Global, then Page 5, then buttons and knobs to select which Part(s), then which parameter(s), then tweak in the value(s). For those who are serious about it, it's much easier to use the PC interface developed by Okan Altug (described under Support Software).

Hex talk - a primer

(This topic was transcribed from a message I posted to the group on March 3, 2000, in an effort to follow **Bob Rockwell**'s lead in trying to rescue from confusion the "cheering section" (in Jim Blackman's words) constituted by our "application-oriented" colleagues, mystified by all the technical messages being frantically exchanged in the group in connection to the ups RAG effort. :-) - *The Editor*)

Computers, being digital devices, process and store information in binary form, i.e., everything they deal with is ones and zeros, which electronics easily metaphors. Most of you may have already read about that. For design convenience and historic reasons, these BInary digiTS ("bits") are grouped in bunches of 8 called "bytes" (some prefer "octets") for storage, transfer and processing. File sizes are measured in bytes rather than in bits. Kilobytes (KB), Megabytes (MB) and Gigabytes (GB) are now part of our vocabulary, with little concern about what's underneath.

For instance, each character of this text is internally stored and represented in the computer as one byte. An "A" is stored as 01000001, an "a" as 01100001, an "o" as 01101111 (this is the ANSI convention; there are computers which employ different representations, but it doesn't matter for the present purpose.). However, this binary notation of just ones and zeros is not convenient for human use. Too long and eye-straining.

Early computer people developed the hexadecimal (16-based) notation, by which one byte is represented by two "hex digits" ranging from 0 to F. What? Yes, hex digits go 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, A, B, C, D, E, F. As our decimal number system has no digits above 9, they took the first 6 letters of the alphabet to represent values from 10 to 15, necessary for a 16-based system.

Why a 16-based system? Because bits are 2-based digits, and 16, contrary to 10, is a power of 2 (two to the fourth) - remember the old elementary school days! This means each hex digit can represent

ANY combination or four bits. Two such digits fully represent an 8-bit byte, with a much more compact notation. The character "A" becomes 41 hex, the "a" turns 61, the "o" goes 6F. Sometimes an "x" will be appended, in a convention to explicit the hexadecimal nature of the notated numbers (e.g. 41x, 61x, 6Fx).

Never mind if you feel you haven't fully grasped the idea; the basic thing to understand is that hex digits are a more compact, but still complete, representation of binary information.

Now for the second part.

Numbers (I mean values, not the numeric characters) must also be represented in bits, and can require one or more storage bytes depending on the range they must cover. Same as with a calculator, which is limited by the number of digits in the display, numeric representations in a computer are bound by the number of bytes they are assigned, which is associated with a "type". Numbers can take 1 byte ("character", range -128 to 127), 2 bytes ("integer", range -32768 to +32767), 4 bytes ("long integer", range approx -4 billion to +4 billion), or even 8 or 16 bytes for representing non-integer values like real or complex numbers.

A file like the .ups is made up of bytes as any other file. As with any non-text file, there is no visible hint as to where each piece of information is stored or how many bytes it takes. A hex editor will display the file as a continuous sequence of bytes, normally in two "modes" side by side: hexadecimal and text. The hex side allows telling every bit of each byte; the text side allows spotting and reading textual information if present. Not every byte will have a text representation: the program will display "non-printable" bytes as periods, little squares, or another convention. For these, only the hex side allows proper inspection or modification.

To have a hands-on experience of what the guts of a file look like, install the HexWShop software from the RAG downloads page. It will add Hex Edit as an option to right-clicking on files. Then use the program to open a Notepad file, then an Excel or Word file. Navigate a bit (sorry, I mean "a little") and compare hex and text sides. Type characters in either side and see the effect on the other. See that you cannot type characters which are not valid hex digits on the hex side. Just be careful NOT TO SAVE BACK THE FILE if you have modified it; hex editing is a powerful yet dangerous tool if you don't know exactly what you're doing. A modified file may be no longer recognized by the application that created it.

Now for the last part.

The "data mining" effort conducted during Year 2000 within the group using hex editors consisted roughly of making changes to a PerfMem, then saving it to disk as a .ups PM set, then opening the two files ("before" and "after") with a Hex editor and comparing them. Doing that a single change at a time allows spotting which byte(s) are affected by the changed parameter, and how.

Quite a few parameters were "mapped" this way for the G-800 and G-1000, until Peter Brand's UPSSplit utility allowed running automated comparisons among individual PMs within a single .ups file, which enormously facilitated the change spotting and parameter mapping process. G-600, E-96 and EM-2000 ups formats were later broken up using that tool.

Getting to know the OS (Operating System) version

For the G-1000/EM-2000, you have to turn the keyboard on while keeping pressed the "WRITE", "SHIFT" and "RESET/TAP TEMPO" buttons. The display should come up showing the keyboard model, the OS version and release date, and also the CPU BIOS version (see Features for a background). The OS can be flash-updated via floppy (see Upgrading...), while a BIOS update, if ever necessary, requires changing a chip inside the keyboard (at a Roland service shop).

For the G-800/RA-800, the button to keep pressed is F1 (top button at the right of the display). The OS of these models resides in ROM like the BIOS and cannot be updated by the user.

For the VA-7, the buttons to press simultaneously at power-up are PIANO, ONE TOUCH & INTRO. Instructions should then appear on the display.

More than 3 Uppers at the G-1000

The G-1000 allows 3 Up's: Upper1/Upper2, which can be used together or alternatively, and Upper3, which creates a keyboard split when activated. Our colleague **Kim Winther** (a dedicated manual reader, one of very few that go reading before starting to play a new keyboard) went beyond the text to find out there is a way to assign and store still another Tone to Upper1.

For that, you must set Melody Intelligence to "Block" and disable MI at the Volume screen. After that, when you press the "Melody Intelligence" button, you will be toggling between Upper 1 and another Tone that you can select - and will be memorized! You can then save the configuration to a PerfMem.

Bob Rockwell noted that any MI choice that calls in a second Tone works the same, not just Block. From the 18 available MI flavors, 13 will work: the ones that are **not** written in italics in the MI options table in section 6.4 of the G-1000 Manual or the equivalent section in the EM-2000 Player's Guide. *(Be sure to check the original English manual; my Portuguese version shows no italics at all in that table. May have happened also in translations to other languages. - N.E.)*

Getting a Hammond sound from a G-800/G-600

Our colleague **Willem Schaaij** dug this from a Dutch Roland Keyboard Club Newsletter.

"With the following settings the G-600/-800 will change into a reasonably good Hammond with Leslie. G-1000/EM-2000 users could also add the Rotary insert effect.

Tones:
UP1: A32 Organ2
UP2: A33-3 Organ3 (Change between A33-3 and A33-4 Leslie Slow/Fast)
LOW: A32 Organ2
ADR: A51 Jazz
ABS: A52-2 Fingered Bs2

Mixer:
F1 Realtime:
UP1: Vol=119, Pan=64, Rev=100, Cho=124, Del=0
UP2: Vol=119, Pan=64, Rev=100, Cho=124, Del=0
LWR: Vol=100, Pan=64, Rev=100, Cho=124, Del=0

F4 Effects:
1 Reverb: 4-hall2, 1-Char. Vol=4
2 Chorus: 0-Chorus1
1 Pre-Lpf 0 (0)
2 Level= 64 (64)
3 Feedback= 0 (5)
4 Del= 112 (90)
5 Rate= 7 (9)
6 Depth= 5 (19)
7 Cho>Rev= 0 (0)
8 Cho>Del= 0 (0)

Don't forget to save your creation into one of the User Programs!"

Saving the current G-1000/EM-2000 OS

Upgrades are seldom bug-free, and after upgrading you may decide you want to go back to the previous version. To do so, insert a blank floppy into the keyboard drive and turn it on while keeping pressed the "TRANSPOSER" (far right at the PM Hold bank), "ONE TOUCH" and OCTAVE "UP" buttons. The display "SYSTEM SAVE" that comes up will guide the next steps. A file named "RES117.SYS" will end up created into the floppy. Label and save it.

Self-Testing with G-800/RA-800

Here goes a complete recipe kindly provided by **Bob Rockwell**, after studying a Roland Service Manual (how did he get it?) and checking things out personally.

First of all, back up your Performance Memories as the tests may erase them. After you enter test mode, the only way out is Power Off. Then you should power up again holding the "Write" button for a master reset, and reload your saved PMs.

- To enter test mode: Power up holding button F2.
- A main test menu will appear. The testing is done using the "Music Style" and "Tone" buttons specified on the main test menu. Instructions for leaving each individual test appear on screen.
  - STYLE BUTTON 1 : This will test all of your switches one at a time as you press them.
  - STYLE BUTTON 2: This tests all 6 rotary encoders (the 5 little knobs under display and tempo wheel), as you turn them.
  - STYLE BUTTON 3: Bender/pedal and BATTERY test. Tests bender control and any pedals you have connected. Your battery should read 3.17 volts when new [that's the small CR-2032 lithium battery that preserves the CMOS memory, same as in a PC].
  - STYLE BUTTON 4: LCD display test. Requires 3 presses of button to get through 3 different tests. Light LCD, dark LCD, LCD shows full screen of number 8's.
  - STYLE BUTTON 5: Tests all LEDs in sequence and then lights and holds all on.
  - STYLE BUTTON 6: Keyboard scan test. Shows key and measured velocity as you press each of the 76 keys [G-800 only].
  - TONE BUTTON 1: ROM test for the two main program ROM chips (ICs 17 and 14). Gives results OK or error------
  - TONE BUTTON 2: Pattern ROM tests ICs 4 and 15 as above.
  - TONE BUTTON 3: Dynamic RAM tests IC 13 as above.
  - TONE BUTTON 4: Static RAM tests IC 16 as above.
  - TONE BUTTON 5: Midi test: requires you cable A-in to A-out and B-in to B-out. Will show OK or error-----
  - TONE BUTTON 6: Disk test. Insert formatted blank disk. Runs complete write/read test of disk & drive.

Also, some audio circuitry tests are available (contribution by **Jagannatha Rao**, who detailed a feature originally mentioned by **Jure Klancar**):

- Hold the F4 key while switching on the power. The display will indicate "Audio Test...... Mono Woofer". You should hear a bass tone.
- Hold the F5 key while switching on the power. The display will indicate "Audio Test...... Stereo channel / High and Mid range". You should hear a high frequency tone.

Self-Testing with G-1000/EM-2000

Luc Janssens heard from Bart Meyvis, a product specialist from Roland BeNeLux, that there was not enough space left in the G-1000 flash ROM to include self-test routines in the OS. Roland service shops can test the G-1000 with external software that will not be given to us users.

The G-1000 (EM-2000 not checked) does open a Pitch Bender calibration screen when turned on with F2 pressed, but goes nowhere from there. Probably someone forgot to remove that piece of code when taking the self-test routines out of the Operating System.

Turning G-1000 off: unmount Zip or not?

The manual recommends unmounting the Zip disk before turning off the keyboard. However, as far as it could be checked, no one is doing it and no harm was ever reported. Just be sure not to turn the

keyboard off while the disk is being read or written to ("SCSI" LED lit or blinking). For full safety, always keep a backup Zip (see FAQ/How-To/Disk Operations).

Upgrading the G-1000/EM-2000 OS

(Note: You may want to first save your current version - see Saving the current OS).

Copy to a blank floppy the RES117.SYS file (the name is always the same regardless of the OS version) decompressed from the upgrade download file. Insert that floppy into the keyboard drive and turn it on while keeping pressed the "Select" (Style/Midi Set), "Gm/Gs mode" and "Bass Inversion" buttons. The display "FLASH UPDATE" that comes up will guide the next steps.

UPS files - what's it all about

(This section was edited from a kind posting by **Bob Rockwell**, out of his concern for fellow RAGgers who were a bit lost in the UPS frenzy that took over the group in Feb-Mar 2000.)

Roland Arrangers, in particular the G line, feature 192 Performance Memories (PMs) that can be individually saved and recalled at the panel. All settings, voices, tempos, styles, splits etc are stored there and are preserved across power-offs to be recalled when necessary. To access a single PM among that many, you are offered Banks A, B, C, then using two more button pushes, you can select 11 through 88. The whole combined mess can be saved as a file on disk for storage and reloading later. Originally, Performance Memories were called User Programs, and their file copy on disk represented a User Program Set, thus the ".ups" extension applied to the file when you save the PM set. So, when you see "Performance Memory Set" in the manual, think UPS.

A convenient naming convention for .ups files is one that includes the current date (yymmdd is a good format, even allowing that a prefix or suffix letter be added if you want to distinguish among different "types" of .ups files). A natural way of looking at it, is that the .ups file is a complete backup of your G's panel configuration on that date.

However, if you take a .ups file into your computer, you get no useful information beyond the 8-char file name. No native way to view or list what parameters are stored for each of the 192 configurations. The keyboard does not offer the possibility to save onto disk a single PM and give it a meaningful name.

For years all this has been possible on the Roland JV's and competition products, creating performance sets and naming and saving them without touching the device itself. Programs like Sounddiver, Sound Quest, JVedit, etc, are available and they even speak Roland Sound Canvas, but they do not speak Roland Arrangers.

The UPMRoland software our fellow RAGger Okan Altug developed in Year 2000 finally allowed G users comprehensive and friendly editing of PM sets saved as .ups files in their PCs, with a big screen and typewriter keys and mouse clicks in place of the little blue display and the tiny knobs and buttons of the G. It also provides a much better insight into all the power that is hidden behind the keyboards' panel and fuzzy menu structure.

VA-7 Boot-Ups

The undocumented boot-up hints below were provided by our colleague **Luc Janssens**. The mentioned buttons are to be pressed and held while powering on the VA-7.

- If you want the VA7 to boot faster: START/STOP button.
- To restore the keyboard to the initial factory settings: MELODY INTELL button.
- To calibrate the pitch bender: ORCHESTRATOR button.
- To calibrate the touch-screen: SONG COMPOSER button.

TnT: Works or Not

Editing the G-1000/EM-2000/VA Zip disk at a PC (200311)

Never delete or rename files directly from/to the Zip disk **at the PC**. The disk can get unreadable by the keyboard. Adding files to it won't work either. To make new files visible to the "Disk List" function, all additions must be made at the keyboard, from the internal floppy. If you copy files to the Zip at the PC, the Zip's databases will not be updated and the new files won't appear in the G-1000 display. After you add Midi files to the Zip at the keyboard, you can modify them at a PC, provided you don't change the file names.

Since June, 1999 there is a freeware named **RDBM** (for Roland DataBase Manager) that allows users with Zip-equipped PCs to manage Songs and Styles in a safe way. See Editing/Managing the Zip disk Contents for details.

Changing file names in the G-1000/VA Zip (200311)

Some users like to rename Styles to a convention other than the one followed in the original Zip disk, where the first character appears to be tied to the style's first source (a particular keyboard model, a series of Style Cards or Style Disks...). Due to the ties with the Style Database, in principle this must be done **at the keyboard** (which is a recognized headache) or the new names will not be found. If you have a Zip-equipped PC, you can use **RDBM** (a freeware provided by Roland) instead - see previous topic.

G-1000 styles on G-800 (and VA on G-1000, etc.) (200311)

Most of the styles in the G-1000 Zip disk were apparently developed on the G-800 or earlier keyboards. Styles making use of Tones belonging to Banks A&B of the G-1000 should theoretically not work on the G-800. However, different behaviors have been reported in the group. Apparently what happens is, some "G-1000" styles do not employ only Tones that are G-1000-exclusive, and the G-800 rings the bells it has ropes for, ignoring the others.

The easier workaround is telling the keyboard to use PM-selected Tones for the Arranger tracks (see Where in the Menu?/How do I change instruments...) instead of the Style's. However, this will likely require a particular instrument configuration for each style, so it is not a general solution.

Our colleague **Bob Rockwell** noted that despite not playing all the sounds, the G-800 does output all the Midi messages generated by G-1000 styles. Therefore, if you Midi an SC-88pro (the G-1000 sound engine) compatible sound module to your G-800, you can make your set sound like a G-1000 with all the right instruments. It may be cheaper than an upgrade.

StyleWorks, a Style editing/creation software by German company EMC (see Web Souces / Software), has been reported to appropriately convert styles among the keyboard models it handles. The latest version so far (as of Nov. '03) covers all models from E-86 to VA-76, including the E-500. It's not cheap, but less expensive than an SC-88pro (which nowadays may be hard to find for purchasing anyway).

The release of the VA-7 my mid-2000 created the same kind of problem for G-1000 owners. All the VA-7 Internal Styles are available at the RAG Downloads Page, courtesy of **Luc Janssens**. Styles created specifically for the VA-7 may not work properly on a G-1000 (or any earlier model). The remedies are of the same nature. You could use PM-selected Tones. You could micro-edit VA-7 styles (a powerful yet quite tedious-to-use feature available in the G-1000) to employ only Tones available in the G-1000 banks. You could add to your set an SC-8850, which talks VA-7 with its eight (A to H) Tone banks. Or you could use StyleWorks.

TnT: "External" Procedures

Hooking a Midi-aware harmonizer to the keyboard

Midi-aware harmonizers normally allow you to select the channel they will take the control notes from. Consider programming the harmonizer to "listen" to the default channel of the appropriate part of the

Consider programming the harmonizer to "listen" to the default channel of the appropriate part of the keyboard instead of changing the default channel-to-part assignment at the keyboard to match the source channel of the harmonizer. This way you can use the harmonizer with an upgraded (or reinitialized) keyboard with no reprogramming. Don't use auto-accompaniment (arranger) parts to control the harmonizer; the corresponding Midi stream is likely to include arpeggios, staccatos and other quick-changing notes that are not appropriate for the purpose. Use LOWER (for left hand control) or UPPERx (for right hand control) instead.

Hooking an arpeggiator to the keyboard, keeping the latter as both master and sound source

Choose the Midi channel you will use as chord input (UP1, UP2, NTA...); set it to Local Off at the keyboard and as chord source at the arpeggiator; select **another** channel for Notes Out at the arpeggiator that does not interfere with other keyboard parts in use and assign it to the desired sound at the keyboard; hook keyboard Midi Out to arpeggiator Midi In and vice-versa. The double Midi connections of G800/G1000 can be taken advantage of if the keyboard must control also other devices than the arpeggiator. You can for instance run Midi Out of the arpeggiator into Midi In B of the keyboard, and chain Midi Thru of the arpeggiator into the next equipment.

Inserting lyrics into Midi files

This is probably the most visited topic in RAG ever - almost a hundred postings since November, 1998 addressed it. At the same time, it was some of the most difficult to put together as a TnT topic based on the group knowledge because, first, I had no experience with it myself; second, more than one approach exists; third, different keyboard models behave differently concerning lyrics display. I have received extensive help from **Silvano Marucco**, one of the earliest karaoke researchers in the group, and also recent contributions by **Marcel Pertus** and **Jagannatha Rao**. A document prepared by Silvano, addressing the subject in detail for the G-800, along with example files, is available as a Word 6.0/95 document inside the file **G800kar.zip** at the Downloads page. -- *The Editor* (on Nov.'99).

Things learned in the process:

- Karaoke files are basically Standard Midi Files (SMF) with embedded lyrics. Some software utilities that facilitate inserting lyrics into Midi files generate the output with a ".kar" extension, but it keeps being basically an SMF and most (though not all) applications and keyboards will accept them for playback (doesn't mean lyrics will be displayed) if the extension is changed back to ".mid".
- Lyrics are embedded into SMFs as Midi **metaevents** (which means basically that they are not actual Midi events such as a note or a controller change). There are several types of metaevents, represented into the SMF as byte sequences starting with hex <FF>. The second byte contains the metaevent type (01=text, 02=copyright, 03=title, 04=??, 05=lyrics, 06=marker, etc.) and the third holds the length in bytes. The actual metaevent content begins in the fourth byte and extends through the end of the string.
- Early karaoke players expect lyrics as **text** metaevents. Roland arrangers, in turn, require them to have some characteristics referred to as "Tune1000 format" (Tune1000 is one of the karaoke software sources, with whom Roland settled a cooperation agreement years ago). This seems to include having the lyrics as **lyrics** metaevents associated with track 4 and Midi channel 4 (this last requirement puzzles me, as metaevents have no assigned Midi channel). The "**Kar2Midi**" program (a small freeware by Günter Nagler, available from his site - See Web Sources / Software) changes text metaevents to their lyrics equivalent and therefore may be useful.
- The G-800/RA-800/G-600, in addition, appear to require the Midi File to be Format 0 (single track) and an "ALL RIGHTS RESERVED" sentence stored as a lyrics metaevent at position 1:01:000 to correctly display the lyrics. The G-1000 does not require this sentence and accepts Format 1 SMFs with no problem (except that it won't take more than 16 tracks).
- The first **Cakewalk** version to handle lyrics metaevents was 3.1. For some reason, Version 4 does not do it reliably and its output can cause a G-1000 to hang. Versions 5 & up will do it OK, besides offering a very comfortable interface to insert and edit lyrics. Their output will work smoothly on a G-1000. However, all of them interpret lyrics present at 1:01:000 as File Info and

smoothly on a G-1000. However, all of them interpret lyrics present at the 1000 as File Info and convert them to text metaevents when saving a file, which will render it inappropriate for a G-800 until reprocessed by Kar2Midi.

- Another software that features a friendly interface for inserting, editing and displaying lyrics is **Alliance**, by MidiMusique (a French company). It works fine despite the language being a potential obstacle for many. Midi karaoke files targeted at the G-800/RA-800/G-600 must be saved as Midi Format 0 files. The "G-800" option offered should **not** be used. It normally hangs within the save routine.

Therefore, to my best knowledge to date (I'll gladly accept corrections and suggestions of better alternatives), a working procedure to obtain a Roland-compatible midi karaoke file is:

- Get or generate a standard Midi file with a track (preferably Track 4) reserved for the melody part. **Note:** it is best that the melody itself does not start at 1:01:000, since lyrics at this position may be ignored by the keyboard. This should not be a tough restriction, once most songs will feature some intro measures before the actual melody begins.
- Open it with Cakewalk (version 5 or greater) or Alliance, and insert the desired lyrics into the melody track. This assures adequate synchronism with the playback, even if the melody notes are removed later on.
- (Not necessary for a G-1000) If using Cakewalk, insert the sentence "ALL RIGHTS RESERVED" into the Comments box of the File Info window (menu File/Info...). This will create a Text metaevent with that content at 1:01:000.
- Save the file as a Format 0 SMF into the folder where you have the Kar2Midi program, or directly to floppy disk if your target keyboard is a G-1000/EM-2000.
- (Not necessary for a G-1000 nor, apparently, if you have typed in the lyrics with Alliance, which already inserts a different sentence with the same effect) Convert the "magic sentence" to Lyrics with the Kar2Midi program: open a DOS window, **cd** to the folder where the Kar2Midi program is located and type "**kar2midi -tune1000 <filein>.mid a:<fileout>.mid**" where <filein> is the name of the file you just saved and <fileout> is the converted file to be created onto the mounted floppy disk.
- Enjoy your new midi karaoke file.

Style download bug (200311)

Years ago there used to be a personal site (forgot who was the owner; I remember the page was shut down after a lawsuit threat by BackBeat) with plenty of Roland styles available, where there was a written recommendation to download them with Internet Explorer instead of Netscape. The styles were zipped together, but WinZip displayed an error message when trying to unpack files downloaded with Netscape. With IE, no problem at all.

In recent years still other instances of site misbehavior have been experienced with Netscape, so it is wise to try IE if a site does not "function" as expected.

Listening to / Modifying Styles (200311)

If one often gets new styles, a time-consuming task (mainly for G-800/RA-800 users) is loading and listening to each one to select those that will really make a difference. A software that allows listening to styles at a soundboard-equipped PC comes in handy to help with that task. **StyleWorks** by a German company named EMC has always been the only software known to the group that does it. The last available version (StyleWorks 2000) handles all Roland arranger models from the E-86 to the VAs. It is rather expensive to license, but the downloadable demo can be used with no time limit except for saving, which makes it a convenient, though limited, style auditioning tool.

StyleWorks 2000 has lately (2003) been reported as satisfactory and reliable, after several problems in the initial release were corrected. Besides playing back Styles, it offers a range of tools to create and modify them. Technical support from EMC was felt to be quick and effective.

One thing to note is that Styleworks appears to make an automatic remapping of style Tones towards

"equivalent" ones in the chosen target keyboard model when playing back a "foreign"style, but this conversion is not stored into the style itself until you actually save it. This means that, if you like a G-1000 style after listening to it with Styleworks controlling your G-800 and decide to keep it, **you need to Save it as a G-800 style first**, or the original Tones will be maintained and some parts may not be heard when using the Style stand-alone at the keyboard.

Importing/Converting "Foreign" Styles (200311)

This topic has been addressed many times in different situations. The most common is owners of earlier Roland arrangers interested in using styles built upon newer models which employ Tones not available in their keyboards (see G-1000 Styles on G-800...). However, availability of and interest about good competitor styles (Yamaha, Korg, Solton etc.) has increased significantly over the years.

To actually convert "foreign" styles to Roland standard requires EMC's **StyleWorks** (see Web Sources - Software), which can read a wide range of competitor formats. If someone else has already carried this step (like for Yamaha PSR-9000 and Solton X1, whose styles, thanks to **Fran Carango**, are available in G-1000 format at the RAG Downloads Page), the problem is either solved or reduced to the conversion among Roland models mentioned above. However, often the "raw" converted Styles require some adjustments (instrument and/or track volume changes, and sometimes the correction of a few notes in Intro or Ending) to really sound like the original.

Organizing Your MIDI File Inventory (200311)

With nowadays' multitude of sources, it's easy that one's collection of SMFs (Standard MIDI Files) gets out of hand. There are tools that can help keep it organized and under control. A good freeware that addresses that is **Mididir**, available from Günter Nagler's site. It allows entering or editing long names (titles) for the files and searching entire disks for existing SMFs, listing them by name or title. Another alternative is **Karawin**, a rather versatile player/organizer shareware that handles also MP3. See Web Sources/Software.

Getting Roland-generated SMFs to Play at a PC (200311)

MIDI files generated in our keyboards often do not play (or just the drums are heard) in a PC. This happens because Roland firmware inserts system-exclusive messages at the very beginning of the SMFs it creates, and these messages sometimes confuse non-Roland soundboards. If you strip off these initial SysEx's with a sequencer like Cakewalk, you'll be able to play the files OK at the PC. This may apply also to SMFs generated in keyboards of other brands.

Tailoring Cakewalk for the G-1000 Tones

Cakewalk (a widely used sequencer software) uses "instrument definition" (.ins) files containing bank and patch numbers to allow full use of a keyboard's sound palette when generating Midi files for it or controlling it directly. A "**Master.ins**" file tailored for the G-1000 is available for download at the Downloads page of this site (a contribution by **Alex Bezvik**).

TnT: Curios

"Christmas Tree" bug on G-1000/EM-2000 (200311)

There is an interesting bug in the G-1000/EM-2000 OS (at least in version 1.06/1.03). If you start an Intro with a **Cmaj7** chord (fingered BCEG) and Bass Inversion ON, you'll trigger a LED show all over the panel and the keyboard will lock up. Power off and back on is the only way out.

Taking off Keyboard Case Scratches (200311)

Someday you might want to sell your keyboard (for an upgrade, of course) and might want to shine it up a bit to get a better deal. Our longtime colleague **Jim Blackman** (a gifted handcraftsman) once provided a recipe to get rid of gigging scratches in the keyboard's exterior (provided its case is plastic and dyed all the way through). He was responding to a message asking which kind of paint could be

applied for that purpose. Here's what he contributed:

"I don't think you use paint at all. Don't add to it. I'm pretty sure you'll really screw it up.

"Get some ultra fine wet or dry sandpaper (I'm talking about 900 to 1200 grit or higher. Look into auto body shops.), and if the scratches aren't TOO deep, just hand rub and buff them out.

"There is a kind of plastic scouring pad out now that is available in those extremely fine grits. That's a nice thing to use. I like it better than the wet or dry. I used these "scouring pads" to buff out a scratch in the plastic of the side view mirror on my neighbor's car. It wasn't fast, but it was good.

"Other things that are good for this sort of work are some toothpastes (use gritty toothpaste), cornstarch used dry, and diatomateous earth. Diatomateous earth used to be used in home pool filters. Using baking soda toothpaste on paper towels, I brought back a pocket watch face that had become dull and foggy by being carried in a pocket with loose coins. It came back quite rapidly.

"Try this stuff in a spot where it won't show first, even if there isn't a scratch in that spot. You'll see what kind of pressure you need to apply and if the grit is about right. Like maybe 900 grit to start, and then switch to 1200 or higher for final work."

TnT: Web Sources

The URLs below were all (re)checked in November, 2003, with comments added as required. Sites no longer responding were kept for the record, but the links were disabled. -- The Editor.

Midi sites

The Midi Search Forms link in this site offers quite powerful search engines to help find specific songs as SMF in the Web. However, some specialized Midi sites were reported as of outstanding quality by members and are listed below for the record.

- Ragtime: www.trachtman.org
- Background music: www.keybdwizrd.com

OS upgrades

- www.xs4all.nl/~rwdewild/midi/ - Maintained by Roy de Wild, with quite a lot of interesting information about Roland keyboards. All released G-1000 OS versions are there except 1.07. No apparent updates after May, 1999, though.
- www.rolandmusik.de/ - Still up, but with no G or VA OS's. The site (in German) seems to have shifted towards the V-Synth and DisCover series.
- users.pandora.be/RKCA/engels.htm - Luc Janssens' RKCA (Roland Keyboard Club Antwerpen) site. Versions 1.06 and 1.07 for G-1000 are there, as well as OS's for VA-5, -7 and -76. Several other Roland-related softwares are also available for download from this very useful site.

Software

- www.team2000-al.com/mdrsoftware - Shareware Karaoke system. Downloadable demo.
- www.gnmidi.com - Günter Nagler's powerful Karaoke MIDI song player, converter and editor is the site's main product. However, it offers also other interesting shareware and many free MIDI utilities for private, non-commercial use.
- karasoft.free.fr - Homesite of Karawin, a shareware that handles and plays (with Karaoke capability) both SMFs and MP3s .
- www.xdigits.com/midi/ - That's a Shareware PC alternative to Arrangers, including Style Creation tools! You'll still need a controller keyboard, though (otherwise you will be changing chords and triggering fills with the mouse).

- www.SpecialtiesLtd.com - This was an EMC Style Works selling counter, managed by our colleague Fran Carango. Fran is not currently marketing EMC, although not discarding a comeback. In the meantime, Styleworks must be downloaded and licensed directly from EMC (next link).
- www.emc-software.de - EMC Styleworks site. Download and licensing. Click on the flag corresponding to your preferred language at the left, then choose your next link.
- www.upmroland.com - Okan Altug's original UPM software download site. He closed it down in September, 2001, after turning UPMroland into freeware and providing it for download from our download page or from RKCA.
- www.ves.f2s.com - Peter Brand's freeware site *[not responding]*.

Tips

- www.edirol.com - A Roland subsidiary. Tips, downloads and other info, centered mostly on Sound Canvas products and related equipment.
- www.rolandus.com - this site used to offer useful documents, under Support / Support Documents / Keyboards & Synth Modules / Intelligent Arrangers. Now they offer just TurboStarts for the E-500, the G-1000 and the VA-7.

Other

- lyrics.natalnet.com.br - For years this site made available the lyrics for most songs charted among the Top 40 since the 1930's. Access was possible by title, artist, decade, year and ranking. Searches could be run by title, artist or phrase. Many songs included interesting details about their history. Unfortunately the site ceased to respond in June 2001.
- www.borg.com/~jglatt/ - A site with "everything you always wanted to know about MIDI but were afraid to ask". Not only tutorials and technical documents, but also quite a few software utilities.