MacDrums vs. Different Drummer

The bets are in and the fight is on, winner take all. Or maybe not...?

Review by Chan G. Ling.

CAN IT BE? Not *one*, but *two* different programs which claim to turn the humble Apple Macintosh computer into a drum machine? Ehhh? Well, if you've got a Mac just laying around the house [*sunning itself like a California Raisin, no doubt – Ed.*] and have been looking for something to do with it, one of these programs may be just what you've anticipated...

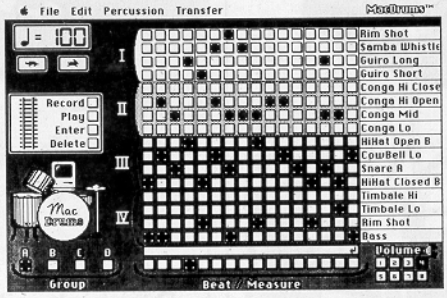
MacDrums is a part of The Coda Digital Jam Series (although I haven't heard of the release of any other programs in the series) published by Coda Music Software of Minneapolis. Different Drummer is published by Primera Software of Berkeley, California.

In many respects, both programs offer the same concept in a similar format. The programmer (that's you) interacts with a graphic interface to place notes on the screen. The position of the notes tells the computer when to play one of the digital samples from the Mac's four-voice musical circuitry. Just like a "real" drum machine, smaller sections are linked together to form complete compositions. Let's take a look at the MacDrums program first.

MacDrums

The packaging of MacDrums is quite clever. In addition to the box, manual, and two disks (one containing the programs and demonstrations, the other containing additional samples and instrument sets), you get the "Official MacDrums Wrist Sweat Band." (Now you *too* can pretend that you're Dave, Tico, or Tommy as you work yourself into a frenzy pushing and shoving the mouse around your desktop.)

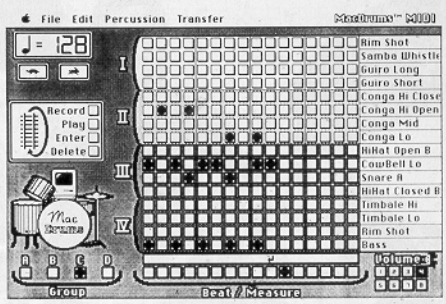
The program isn't copy protected, so installing it on a hard disk is a snap. Once opened, you're presented with a main screen that's visually clear and easily understandable (see **Example 1**). In the upper left-hand corner is the speedometer. The little turtle and bunny buttons under the metronomic reading are obviously for adjusting the tempo so that it's slower or faster than the current reading. In case this graphic is too hard to understand, MacDrums includes an on-line help system that is nothing short of being idiot proof. If you have a question about anything, simply push the option key on the Mac's keyboard and the cursor turns into a little question mark. Click the question mark/cursor on top of any control, and a dialog box pops up explaining how that particular control is used.



Example 1. MacDrums: Main Screen.

The largest portion of the main window is a grid of little square boxes that are sixteen rows by sixteen columns. Each row is dedicated to a particular instrument shown at the far right. In other words, the first row in the example is the sound of the Rim Shot, the second row is for a Samba Whistle, etc. The sixteen vertical columns determine the attack points for the designated sound. In order to get a sample to fire at a particular time, you simply point the mouse at the box and click. If a box already has a little black dot, clicking on it will erase the graphic and erase the voice from that position. Similar to MacPaint, you can also drag the mouse around the grid to turn notes on and off.

To the left of the grid are four Roman numerals which bracket four samples each. The samples that are included inside the bracket (in the first example: Rim Shot, Samba Whistle, Guiro Long, and Guiro Short), cannot sound at the same time. This is not a limitation of the program, but a limitation of the Mac's four-voice sound generator. So, you can get one voice from the first grouping of instruments, one from the second, and so on, until you reach the four-voice limit. The Mac's limitation of four voices at once can't be outsmarted. But, you can easily customize the instrument grid to your liking, and then save that setting to disk as an instrument set (see **Example 2**). Later, when you want to work with the same orchestration, just load the set back into the computer's memory – piece o' cake!



Example 2. MacDrums: Instrument Set.

Below the main grid is a long rectangle containing a little arrow. This rectangle is used to determine the time signature of the pattern on the screen. In the first example, since the arrow is at the last box, you can play a single measure of 4/4 time with a quantization level of sixteenths, a measure of 2/4 time with a level of thirty-seconds, a bar of 3/4 time with eighth note triplet resolution, or anything else that you can think of that uses sixteen divisions per measure. If you look at the second example, you'll see the arrow under the tenth box. This

could be a measure of 10/8 with an eighth note resolution, 5/8 with a quantized level of sixteenths, etc. If you've ever programmed any of the early Roland drum machines, this type of grid and time signature control should make you feel right at home.

The programming unit for MacDrums is the measure. There can be up to sixty-four measures in memory at a time. Do you see the buttons for groups A, B, C, and D, at the bottom left corner of the screen? These buttons, in conjunction with the sixteen additional boxes below the time signature rectangle, are used to select which of the measures you want to program (sixteen in each group). In the first example, we are looking at measure four of group A, the second example is playing measure eleven of group C. Be aware that changing the length of one pattern automatically changes the length of the other 63 patterns. There is no way to combine patterns of two different meters.

Below the tempo buttons is the track window (nice, clear graphic, isn't it?). The four buttons on the right control the function of the track for recording, playing, entering, and deleting. I'll take just a second to explain what these four buttons actually do.

Each individual grid is considered to be one measure long. When you decide that you want to create a song (called a track in MacDrums), you first push the record button. Then you use the group and measure buttons to bring the pattern you desire up on the screen. When you're looking at the pattern that you want to use for the first measure of the song, you hit the enter button. To continue building the song, you bring up a different measure (or leave the same measure on the screen if you want it repeated) and hit the enter button again. Your track can be anywhere from one to 999 measures in length. If you want to remove a measure from the end of a track, simply hit the button labeled delete. Whenever you'd like to hear your track in its entirety, hit the Play button. The graphic depicting the drumkit is another type of play button that will cause the single pattern (remember, only one measure) in the grid to repeat over and over (handy for building patterns).

MacDrums has several interesting features. By clicking on the little picture of the railroad track, you can force the track to loop from the beginning to the end indefinitely (see Example 2). There is a companion program included with MacDrums called MacDrums MIDI. When using this program, the individual instruments can be named, assigned a MIDI channel, specific note number, and specific velocity. Tracks can be exported and imported from MacDrums to its MIDI counterpart and vice-versa.

If you plan to use MacDrums as the main drum machine in a MIDI studio, be aware that it has some serious limitations. Only a single MIDI velocity can be programmed for each instrument. In English, this means: no dynamic control! In addition, the program doesn't generate or follow MIDI clocks, so it can't be used in sync with other MIDI devices. The most bothersome non-MIDI problem was the tempo control. When you press the little turtle or rabbit, the tempo decreases or increases at a rate of 1/60th of a second per beat. What this formula means is that you've got plenty of control as long as the tempo stays at quarter note equals 60 or below. As soon as you start increasing the tempo, you quickly loose any fine control. For example, the only tempi offered above 100 are 112, 128, 150, 180, 225, 300, 450, and 900. Granted, you can create some interesting textures with a tempo of 900 beats per minute, but if you want your creation to move along at a tempo of 122 or 136, you're out of luck.

Another problem arose when creating ►

tracks. Let's say that you want to change the twelfth measure of a thirty-two bar track. Your only option is to delete backwards from bar 32, all the way to measure twelve, and re-program the remainder of the song. The manual compares this action to stringing beads on a rope.

Each of the samples included with the program (35 in all) sound pretty good. Longer sounds, like the toms and cymbals, get quite noisy toward the end of the decay (due in part to the Mac's internal 8-bit linear sampling ability). The program's output sounds much better coming from an external speaker system instead of the Mac's tiny internal speaker. But, with or without an external speaker, I experienced a little problem with the samples when playing patterns and tracks. Several samples, most noticeably the bass drum, distorted badly whenever another sample was fired at the same time. I'm not sure what caused the problem (MacDrums or Macintosh), but it severely limited the quality of the sampled sounds.

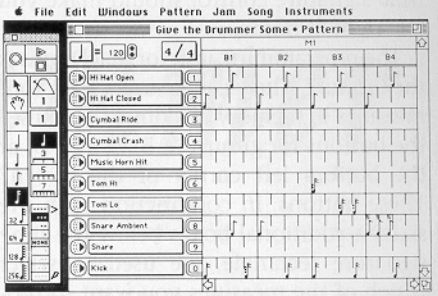
MacDrums is a good solid program that operated flawlessly. The Macintosh is a computer known for user friendliness, and MacDrums has got to be the easiest music program I've ever seen. The on-line help feature is all you'll ever need, and you won't even need that after playing with the program for ten minutes. But, with all that ease of use comes those limitations – life seems to be full of those trade-offs!

In all fairness, I can't be too critical of MacDrums' limitations. Trying to compare MacDrums to a "real" drum machine, would be like comparing a software flight simulator to actually flying an F-16 Falcon. They are, quite simply, a universe apart. If, on the other hand, you look upon MacDrums as an easy-to-use, entertaining program that creates and plays different drum rhythms, it's a gas.

Different Drummer

The second program on today's Macintosh menu is Different Drummer. As you look at **Example 3**, you'll see the main screen (Pattern Edit) of this program. Different Drummer actually uses four screens, one each for patterns, jams, songs, and instruments. But, I'm getting ahead of myself. The Pattern Screen is a little like the main screen used in MacPaint: there's a tool palette on the left, and a grid showing the available instruments with their attack points in terms of measures, beats, and divisions within a beat.

In order to program a pattern, you select one of the note tools (from quarters to 256th notes), wait a second until the proper grid shows up on the screen (four divisions per beat for sixteenths, eight for thirty-second notes, etc.), and click wherever you want a particular



Example 3. Different Drummer: Main Screen.

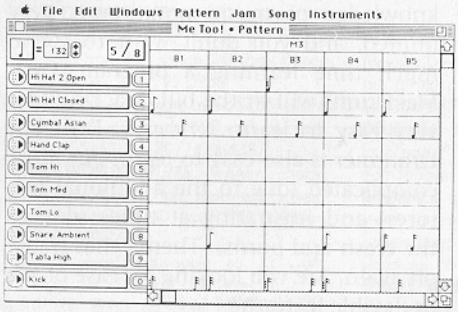
sound to fire. Dynamics are selected by choosing one of seven levels (the dots on the bottom right of the tool palette), and if you're looking for a triplet, quintuplet, or even a septuplet, just click the appropriate icon and the grid automatically updates to reflect these changes.

Notice in the third example, how the notes on the grid retain their values, even when another grid is currently selected. It's visually easy to see which notes are accented, their accent level, and any duplet grouping that may apply.

At the top of the tool palette are the motion controls. The little arrow is the

graphic representation for "play," the box means "stop," and the two concentric circles are pushed whenever you want to record patterns in "real time." Real-time recording just like a drum machine? You bet. Notice the numbers to the right of each instrument's name? They correspond to the numbers on the Mac's keyboard. Just click the icon of the concentric circles, select a quantize level, and use the number keys for the sounds and the numeric keypad for dynamics. As you play (type?) the sounds are fired and the grid fills in with your notes. (*Good thing you've got those sweat bands on! – Ed.*)

The tool palette also contains an arrow for selecting notes, a hand icon for moving around the screen, a metronome (with an audible click that can be toggled off and on), and a display of the current measure and beat that updates as the pattern plays. By using the pull-down menus at the top of the screen, you can select from a variety of time signatures, and clicking in the up/down arrows next to the metronomic marking will let you program any tempo between 1 and 256 beats per minute. If you want to create patterns that are longer than one measure, there's another menu command which lets you add additional bars. So, adjusting time signatures, pattern length, or tempo is a breeze (see **Example 4**).

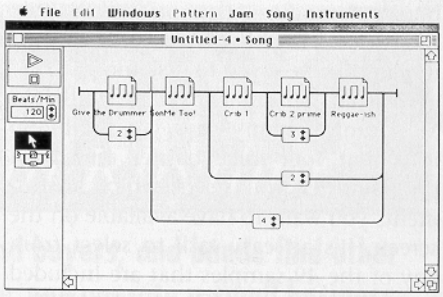


Example 4. Editing with Different Drummer.

There are a few other goodies that can be called into play whenever you're building patterns: you can cut, copy, paste, erase, move any single note or group of notes, delete all events in the pattern, delete all attacks of an instrument, and so on. When your pattern is complete, you name it and save it to disk.

The song editor is where this program really shines (see **Example 5**). By calling up a new song, the program first asks you to load in a series of patterns. Because patterns exist independently of songs, it's easy to create songs that use mixed meters or patterns of different lengths. Once the patterns are visible on the screen, you can adjust their order, insert loops (even nested loops at several levels), and program a tempo. The song editor has some slick tricks of its own. You can copy a pattern, edit a pattern, or even copy a pattern's icon. This last feature is handy when you want to come back to a previously used pattern at a later point. Songs can also be named and saved to disk for later use.

Jams are something that are unique to this program. When you create a jam, the program asks you to load up any patterns that you want included. Then, the jam window lets you play these patterns in any random order by merely clicking on the icon for the pattern you want to hear next. I found this quite useful when trying to decide which patterns to use for a particular song. Just load a ►



Example 5. Different Drummer: Song Editor.

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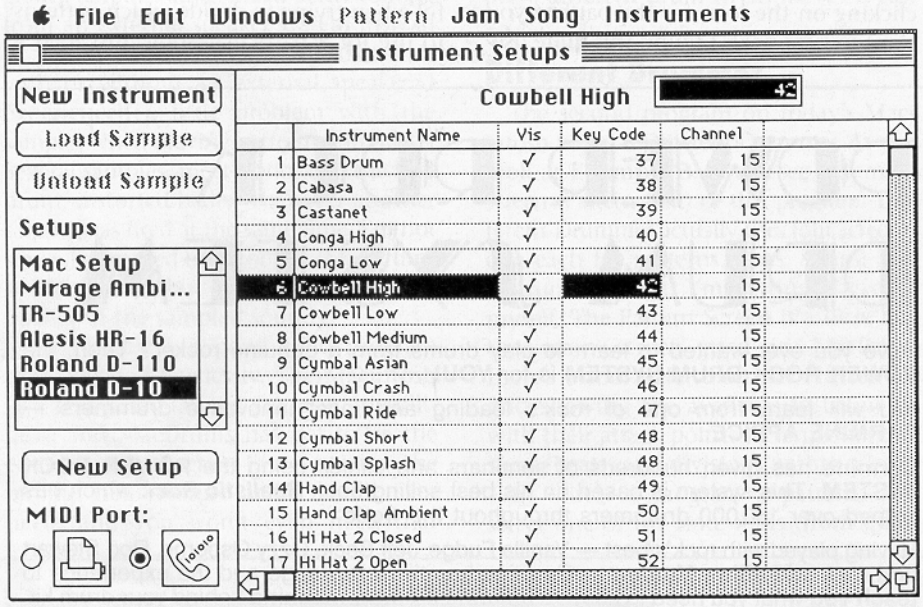
bunch of patterns into a jam and see how they sound together. And, you guessed it, jams can be saved to disk too.

Different Drummer is very similar to MacDrums in many ways: you still bump into that four-voice barrier, but both programs let you select which instruments you want to have available on the screen. It's an easy task to select from any of the 49 samples that are included with the program, and get this – Different Drummer can also read sample files created by the Soundcap, SoundEdit, and Sound Designer programs. Too much!

your software sequencer (if it can read MIDI files). I tried opening a MIDI file in Mark of the Unicorn's Performer, and changing the duration of all the notes. It worked just fine!

How do the sounds compare? The samples contained with Different Drummer were a little cleaner (but a little shorter) to my ear than those in MacDrums. And I still had trouble with distortion when using either the Mac's speaker or an external one. This leads me to believe that the problem lies in the Mac, not the software.



Example 6. Different Drummer: Instrument Setups.

The fourth screen is for "Instrument Setups." Here, you can define an instrument, give each one of the sounds names, MIDI channels, and MIDI note numbers (see Example 6). Whenever you want to change setups, you can select them from one in the "instruments" menu. Bingo – one instant you're triggering an HR-16, the next a D-110, or whatever you need. By the way, the seven dynamic levels are transmitted through MIDI. In theory, by sending certain sounds out over different MIDI channels, you could control a drum machine along with a synth playing a simple melody. In practice, this doesn't work. It seems that Different Drummer doesn't send any Note-Off commands over MIDI. This presents no great problem when triggering drum machines, but limits its use with any other type of MIDI gear. I've been told by the program's author, that an updated version of the program will send note-off messages.

But even so, there's a way around this. Different Drummer lets you save any pattern or song as a MIDI file. This means that you can dump your Different Drummer data to disk and open it back up in

In short, Different Drummer is a well-thought-out and well-planned program. The 114-page manual is easy and clear reading. It contains brief primers on musical note values and meters, troubleshooting, MIDI, and a chart showing all of the various menu-equivalent key commands (covering almost every single menu command). It also has a glossary and a complete index. Several features are designed to make your programming life easier. The zoom feature will let you see up to four measures when zoomed out, or legible 256th-note septuplets when zoomed in. You also have the ability to change the defaults of instruments, pattern lengths, or time signatures. This program helps you be creative instead of getting in your way.

But (sigh), nothing is perfect. Different Drummer bombed on me several times. The first was attributed to having the Mac's RAM cache turned on. The others were caused by little gremlins that would rear their ugly heads, then disappear. Most of my trouble would happen while playing with jams. But, each time the program bombed, I'd re-boot and repeat my steps to try to get it to bomb again. However, I discovered that these bombs were very like the measles – they would never repeat themselves in the same way.

Even with the bombs, the program was a pleasure. I created several patterns and saved them as MIDI files to fine-tune in the sequencer. Once edited, I could lock my drum machine to the sequencer (with MIDI clocks) and record patterns directly into the drum machine. This way, I was using Different Drummer as a software pattern editor. To be honest, I sort of enjoyed programming my real drum machine in the graphic environment. I'm just sorry that the program has a ten instrument limitation per pattern. If it could handle thirty-two different voices at the same time, and maybe even send some System Exclusive codes, Different Drummer could be a valuable remote-control programmer for any drum machine.

And the Winner Is...

So...who wins the fight between MacDrums and Different Drummer? That depends on what you're looking for. Based on strength alone, Different Drummer wins by a knockout in the second round. If you want a program that can easily interface with your drum machine and other MIDI programs and has a good deal of programming control, then Different Drummer is the one. If your knowledge of music notation is very limited, and you don't want to spend much time learning a program, then MacDrums will fit the bill. MacDrums is very easy to learn, *very* easy. Different Drummer is also easy to learn, but more complicated (due to the additional features) and frustrating at times (due to the crash and burns). There's that trade-off again. Are you looking for ease of use or flexible features?

Neither of these programs is going to make Roland, Yamaha, Korg, or E-mu shake in their boots. Coda's program seems to be aimed at the novice or Macintosh enthusiast who might enjoy a taste of drum machine programming. Primera's entry is a much stronger step in the right direction. Given the price (MacDrums sells for less than $50 and Different Drummer comes in at under a hundred bucks) and the features, how can you go wrong? ®

PRICES: MacDrums, $59.95; Different Drummer, $99.95

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