y Michael Eilers
still remember the day when my high school physics teacher, Mrs. Bruggeman, took us out to a local pool hall for a field trip. More than a little in awe at the overwhelming stench of spilled beer and cigarette smoke, we watched with delight as our prim, reserved teacher whacked balls around the table. "Pool," she insisted, "is really just physics—and math—in action." We spent the rest of that week simulating collisions on the chalkboard, crunching equations with solar-powered calculators.

Available on the PC side since early 1995, the game has won many awards, including "1995 Sports Game of the Year" by PC Gamer and the "Golden Triad Award" from Computer Game

How far we have come. Virtual Pool, a title developed by Celeris and published by MacPlay, turns the average Power Macintosh into a sophisticated physics simulator with dazzling graphics and sound. Balls carom, bank, double-kiss and do spinouts with amazing fidelity. A variety of options and controls allow for precise aiming, complicated trick shots, and rapid

# Better Than The Real Thing

play.

Review.

Virtual Pool simulates every force and variable on the pool table, including friction, speed, collision, and rebound. The mathematical precision of these simulations is so precise that

you can reproduce a single shot an infinite number of times—a feat no fallible human could ever pull off. The crispness of response allows for some spectacular shots, from winning games of 9-Ball on the break to 15-ball trick shots. Ball "English" and Massé shots are also simulated, with curves and banks that are so realistic it's eerie. Light a few cigarettes and spill some beer on the carpet and you're there.

Being in the digital realm, many special features are available that would be patently impossible in the pool hall. You can "undo" a shot while practicing that three-ball carom shot again and again until you get it right. You can also turn on "tracking," a sophisticated feature that uses colored lines to show where a ball will travel after it is hit. I can't think of a more powerful tool for learning either basic collision physics or pool technique. There are also saved games, instant replays, and computer opponents. Network play is supported with Serial, Modem, and Appletalk games available. Theoretically, if used with TCP Serial or IPRemote you could play games over the Internet with anyone in the world.

All aspects of aiming the ball are allowed, but there is only one control for the stroke of the cue—which means you hit the cue ball perfectly every time, like a pool expert. All the hazards of an unchalked cue, a bump by a fellow pool hall patron, or a distracting member of the opposite sex have been (unfortunately, in some respects) removed. Again, this allows for some pretty amazing shots and also facilitates studying pool in a "pure" state, free from interference.

excellent pool simulator; it is designed to actually improve your real-world play. Lou "Machine Gun" Butera appears in over 50 video clips demonstrating techniques, tips, and trick shots. The manual itself has a guide to the professional rules of 8-Ball, 9-Ball, Straight Pool and Rotation. Both the magazine advertisements and the box for this game feature a guarantee that the game will improve your actual pool play, or your money back.

Did it help me? Well, I didn't have enough time to compare my video pool skills to my real-world fumbling, but I will say this: I've played pool for about eight years and consider myself a strong player in many respects. Virtual Pool was realistic enough that I found myself using many of the same alignment and ball placement techniques I learned on the real felt, and very quickly I was able to gauge shots and predict their outcomes.

## Sights & Sounds

The game itself launches with a movie intro that played smoothly off a 2X drive, though the movie itself wasn't anything special. My eyes didn't begin to pop until the table appeared and round, accurately rolling pool balls began to zip around the table.

The balls themselves are anti-aliased in realtime as they roll, and the numbers and stripes (drawn as vectors, not texture-mapped) rotate truly as the balls travel, not in just 45-degree increments like some arcade simulators I have seen. Surrounding the table itself is a crude virtual pool-hall, with cues in a rack, a ceiling fan, and wainscoted walls. On a PowerMac 7100/66 at 640x480 and a 7500/100 at 832x624, I was able to rotate the entire scene in near-realtime, and by turning a few options off I was able to get well over 30 fps (estimated), making for some pretty convincing ball movement indeed.

Adding to this realism are the sounds of ball contact. Crystal-clear and utterly convincing, the clicks and bumps of the balls sound great and vary in volume with the level of impact. Even the satisfying sound of slamming home a corner pocket shot is nearly perfect. The only thing missing is 3-D stereo sound.

The game comes with a disc full of music tracks, a sort of "virtual jukebox." Celeris attempted to hit all the musical bases with country, rock, blues, and even trance and hiphop tunes, but they all play in the same key: cheese. No-name musicians labor through songs destined to keep them playing small-town bars for the rest of their lives. There is also no control over song order or "shuffle." In some ways, keeping the music settings "as-is" might be one of the more realistic parts of the simulator. After all, whenever I go to a pool hall I am subjected to terrible music over which I have no control. Thankfully, you can eject the CD and replace it with one of your own choice.

he video clips featuring Lou Butera were crisp and smooth but ultimately a little disappointing. They are in a proprietary format, not Quicktime, so they can only be viewed within the game and do not allow pause, rewind, or slow-motion. This is probably due to the game's PC origin, as Quicktime was not in common use on the PC back then. It is too much to expect MacPlay to re-shoot or convert this much video, but Mac users are used to a little more control.

Lou talks fast and shoots faster and some of the clips are over in the blink of an eye. However, the trick shot clips have a nifty feature which allow you to try every shot Butera demonstrates, setting it up for you automatically. Going back and forth from Butera's real-world shots to the Virtual Pool shots was very convincing evidence of the simulation's accuracy.

The disc also contains a very funny and well-produced video clip about the "History of Pool," narrated nasally by a BBC-style announcer and full of amusing Terry Gilliam-esque animations. While far from comprehensive, the history is pretty accurate and lots of fun to watch.

Lining up the cue itself is a nicely straightforward process. The mouse is the main tool, and its motion is modified by pressing certain keys or the mouse button. You can aim the cue or rotate the table while the cue remains in place, allowing you to watch a shot from any position. This is a game where a mouse (or even better, a trackball) is required for precision, and a joystick would actually be a liability. Zooming in and out smoothly helps you to get your eye on the ball. Hitting the ball is accomplished with a push of the mouse, tough to get used to but very predictable in results.

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If I was so impressed by this game, why is my rating so low? Well, just as a pool hall may have roaches, this game has bugs—big ones. On my 7500/100, with both 7.5.3 revision 2 and 7.5.5 and Apple-only extensions, Virtual Pool crashes every time I quit the game—sometimes so hard that the only solution is to turn the computer completely off. The game did not crash on quit when played on a 7100/66, but it did crash the computer while attempting modem play. I did not have the time or resources to completely troubleshoot these problems, but any 100% reproducible crash is a serious flaw. I strongly advise those with 7500s (and perhaps PCI Macintoshes of any kind, as the problem seems related to the video fade-out at the end) to wait for an upgrade or patch to become available online before buying this title.

Also, there are a few limitations to the simulation worth mentioning. First, there is no vertical ball movement at all; essentially, this is a 2-D simulation along a single axis. It isn't possible to chip-shot or "jump" the ball, and a ball will never leave the table. Also, the game allows many humanly impossible shots (several are shown in the screen shots) which would require the player to lay flat on the table to re-create. Thirdly, there is no tournament option or scorekeeping, which would have been a real boost to network or team play. And finally, there is no option to have the camera follow the ball after it is hit—something that seems like an extremely basic feature for a 3-D engine such as this. You can also zoom right through the table or view the entire game upside-down! While this is a nice use of technology, the 3-D engine should have some limiters so you don't waste time viewing the game from impossible or silly angles.

The computer opponents are more human than human. Even the easiest digital player can clear a table in no time flat, and when they flub, it seems like Michael Jordan suddenly chucking the ball into the stands. Celeris definitely gets the "Neanderthal Sexist" award for giving the two weakest computer opponents female names. The advanced opponents are capable of quite sophisticated combo shots and will keep anyone humble.

I own literally dozens of MacPlay titles, and this is the first one I've ever played that is buggy out of the box. Knowing their past history and reputation I am certain the problem will be solved in mere weeks, but it was still a disappointment. I was unable to test network play because of this, and that's a real pain. Having to "force-quit" the game every time is more than a hassle, it is dangerous. However, I want stress that this is still an excellent port in every other respect: great Mac-only manual, fast and smooth graphics, low disk space and RAM requirements, and great gameplay. Once the bugs are cleaned out of the pool hall, this game will be in heavy rotation on my machine.

### **Pros**

- Amazingly accurate and realistic simulation
- Versatile controls allow for great precision
- Plays smoothly on 66 MHz machines with all features on
- Scalable screen resolution: 640x480, 832x624 and possibly above
- Anti-aliased graphics and crisp video
- Many network options
- Trick shot library
- Excellent introduction to the physics of pool, or physics in general
- Realistic enough you can almost smell the cigars

### Cons

- Power Macintosh only
- Bugs and crashes (see above)
- "Impossible" shots allowed
- Soundtrack songs could out-cheese Kraft
- Video clips often short and have no VCR-style controls
- Requires 2 complete copies of the game for net play

### Publisher Info

MacPlay 16815 Von Karman Avenue Irvine, CA 92606 (714) 553-3530

http://www.macplay.com