

# Star Wars, Nothing but Star Wars

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# Star Wars, Nothing but Star Wars...

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No Jedi mind tricks here. The Force is with us in a big way this May, when every console gets a game based on

**STAR WARS**  
**EPISODE I**  
THE PHANTOM MENACE





**F**or a couple of guys who've already seen "the movie," Dean Sharpe and Mike Ebert sure seem calm. The two men are president and vice president respectively of Big Ape Productions, LucasArts' development team working on one of the first games based on *Star Wars: Episode I—The Phantom Menace*.

And since *The Phantom Menace* can only be considered the Biggest Thing Ever when it hits theaters on May 19, you gotta figure Sharpe and Ebert feel the big movie's mystery has been spoiled a bit by the bombardment of super-secret *Episode I* source

material and pre-screenings that come from working on the game. "Spoiled? Absolutely," Sharpe says, rocking back in the chair of his toy-cluttered office. "I mean, I felt like that 18 months ago when I saw the first screening. It was like, 'Hey, I didn't wanna know that!'"

Of course, such sacrifices are to be expected when you're working on an enormously high-profile project. And no less than five such projects are in the works in and near LucasArts' San Rafael, Calif., offices. While *Star Wars* fans start wrapping their mouths around tongue-twisting new names like Qui-Gon Jinn, Jar Jar Binks and Mace Windu, LucasArts is keeping things simple with the titles of its

first two announced games. Called *Star Wars: Episode I Racer* and *Star Wars: Episode I The Phantom Menace*, both games hit stores May 24, when demand for *The Phantom Menace*-related stuff will be hotter than the Death Star's superlaser.

Racer, based on the pod racing event you've already glimpsed if you've seen the first trailer, will hit the Nintendo 64, alongside PC and Mac versions. This ultra-fast racing game will also arrive on the PlayStation, but not until the latter half of the year, due to Nintendo's limited exclusivity deal with LucasArts (which includes one remaining, and still unannounced, *Episode I* game for

the N64). A Dreamcast version is also highly probable. The *Phantom Menace* is a PlayStation and PC title, with a Dreamcast version likely in the works, too. The other three *Episode I* games will hit all the platforms (a Game Boy Color title is brewing, as well) and "cover every genre you can think of," according to LucasArts. So, will we see a *Phantom Menace* fighting game? A first-person shooter? A space-combat game? We'll find out when the remaining titles debut at E3.

For now, we're ready to slice open the blast doors that have hidden *The Phantom Menace* and *Racer* since the beginning of their development.

By John Davison  
and Crispin Boyer



Photography by Michael Sexton

**Spoiler Warning:** This feature reveals minor details about *Star Wars: Episode I—The Phantom Menace*. If you fear learning anything about the film, put this magazine down, back away and go hide under your house until May 19.





Editor's Note: Unfortunately, PlayStation shots of Phantom Menace weren't available at press time, so we've included PC pics that are representative of the gameplay. Fear not—we'll show plenty of PlayStation screens next issue.

Big Ape Productions' past work for LucasArts includes *Herc's Adventures* and the 16-Bit gem *Zombies Ate My Neighbors*. The team includes, top row from left, Dan Ross, Mike Ebert, Ray West, John Barnes. Middle row from left: Eric Wilder, Dean Sharpe, Robert Leyland, Denzil Kriekenbeek. Front: Brennan Underwood.

## STAR WARS EPISODE I THE PHANTOM MENACE

The Phantom Menace, the video game, starts pretty much exactly as the film will: *Star Wars* logo, star field and straight into the music—pow! Followed by the now-familiar "crawl" explaining the story, Flash Gordon style. So, is the game going to follow the opening of *Episode I* exactly? "It will," explains Dean Sharpe, the aforementioned president and "programming guy" at Big Ape Productions, the development team working on the PC version on which the PlayStation game will be based. (A much smaller team is working on the PlayStation port a few miles away in LucasArts' San Rafael offices.) "It's very close to the original, but they've [Lucasfilm] changed it since we wrote that opening crawl. That's actually one of the challenges of working on something like this. They keep changing things without telling you... and they'll continue to change things up until the movie comes out."

Once the familiar *Star Wars*-ness is over, the game reveals itself to be just what its former working title, "The Adventure," suggests: an adventure game in the spirit of something like *Tomb Raider*, only with a fixed, higher camera angle that creates an isometric perspective. Your character explores and battles through polygonal environments straight from the film, about 13 levels in all. The game mixes

lightsaber battles, puzzle solving and lots of character interaction in a plot that closely follows the film's fast-moving story, which interestingly enough is set over only a couple of days.

The first in-game cutscene in *The Phantom Menace*, much like the opening sequence, mimics the movie very closely. Obi-Wan Kenobi and Qui-Gon Jinn are two Jedi sent to investigate trade sanctions imposed upon Planet Naboo by the Trade Federation. An impressive prerendered sequence of the Jedi's ship (no movie footage) leads into a further cutscene that utilizes the game engine as the characters follow lines loosely based on the movie script. Now seems as good a time as any to pose the question we've been itching to since we got to Big Ape's office—do they have copies of the script lying around? "Are you kidding?" Sharpe says, laughing along with Big Ape VP and "art guy" Mike Ebert. "No way. It's all under strict lock and key and you have to arrange time to go look at it. The level designers pretty much fleshed out all the characters and what they wanted them to say, and then we farmed this stuff out to a writer who was able to work with the movie script, go over it and work it all out for us. We did a lot of initial dialog, but most of it was completely reworked by the writers."

The game's script is sizable. But what makes it even more impressive is the text is conveyed through digitized speech (along with interactive music—see sidebar on page 120). "There are close to 4,000 lines of dialog," Sharpe explains. "In a normal game that uses the SCUMM interface [LucasArts' point-and-click interface for adventure games that has been heavily modified for *The Phantom Menace*] there are 8,000 lines, but this is a different kind of thing. As far as dialog goes, this is more like *Zelda*, although *Zelda* was really bad; there was a lot of talking there without anyone saying a whole lot."

Sharpe talks us through the game as he guides the characters

## Dateline: Episode I

Nov. 1, 1994

George Lucas begins writing the screenplay for *Episode I* in the same loose-leaf binder he's used for all his scripts since *American Graffiti*. He builds *Episode I* off the 15 pages of notes he wrote in 1975 to serve as a backstory for the original trilogy. Moviegoers—still fascinated by the exploits of a speeding, flying, exploding bus—have no idea what's in store.





around the first level. "You play Obi-Wan mainly. He's probably the main character in the game, but in other places you switch to other characters as dictated by the story—Qui-Gon Jinn, the Queen and Panaka, who's the queen's guard captain. In the level where you play the queen, you actually switch back and forth in order to flick switches

and open doors and stuff. Panaka isn't really a huge character in the movie, but for the sake of the gameplay he's a useful character to have around. We had to make a lot of sacrifices in order to follow the movie. Normally I wouldn't want to switch characters in the middle of a game because it spoils the flow—but to follow the story

How much of John Williams' score for *Episode I* is new, as opposed to classic tunes from the original Trilogy?

- A) It's all new.
- B) 90 percent
- C) 50 percent
- D) John Williams didn't compose any new music.

**"When you see the movie, you'll see the Jedi are so not interested in anything that's attacking them. They're so cocky and so good."**

**—Dean Sharpe, president of Big Ape Productions**

**"...the first thing people do is wander into town and kill the first jawa they come across. They can get themselves a little jawa race war going on if they're not careful."**

**—Mike Ebert, Big Ape's vice president**



**A**) Ninety percent. Williams and the London Symphony Orchestra created a two-hour score for *Episode I*. Most of the music is new, with only a hint of the old tunes here and there. The new score has been modified to play interactively throughout *The Phantom Menace* game.



The *Phantom Menace* is packed with cutscenes using the game engine (top). Many are shot-for-shot re-creations of scenes in the film. Although you spend most of the game on foot (bottom), you'll get to pilot a STAP and a tank.

accurately we had to make some compromises. Fortunately in this case, I think it works really well."

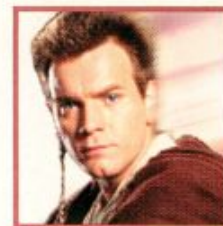
The first level is all about Obi-Wan, and as the game unfolds it's more than apparent that this is a bit different from what we normally expect from an adventure title. For a start there's none of the usual rigmarole of building up your character. "You can see you're pretty much a bad-ass Jedi from the very beginning," Sharpe says, chuckling as he moves Obi-Wan down a corridor, deflecting laser bolts with his lightsaber in a manner that could only be described as "nonchalant." "The characters start out at the beginning of the movie as real kick-ass Jedi, so it was hard to work in the whole video game 'powering-up' thing. We tried to just start the game off and say, 'Well, OK, they're bad ass,' so you can go in and pretty much kick the shit out of anyone."

The Jedi's fully powered-up abilities are ably demonstrated as Obi-Wan and Qui-Gon move into a room filled with the now-familiar Battle Droids. Laser bolts fly everywhere, and then, out of the blue, all of them are pushed back against the far wall and erupt into balls of flame. Cool. Looks like someone is using the Force. "You always have Force powers," Sharpe explains, as a wave of Force energy careens across the screen. "The only thing we have is the Force push and the acrobatic stuff like big jumps, though. We really argued with ourselves a lot about putting in loads of Force powers, but they just don't use anything in the movies. They use the Force push, and then there are some ridiculous acrobatics, but that's it. We went through the Jedi Knight game list of Force abilities and thought about putting some

of those in but, y'know, when was the last time you saw a good Jedi doing a Force grip on someone?"

Good point. After all, it's only dark Jedi who crush tracheas and shoot lightning bolts from their fingertips in the original trilogy. So is the gameplay just all wandering around and kicking the crap out of Battle Droids then? Or is there more going on than pure action? "There's actually an equal balance of action and adventure, puzzle solving and dialog," Sharpe explains, "but we don't let things get complicated. Everything will be triggered by using the Use, Attack and Direction buttons to keep things simple as you transition between gameplay styles. Even the blocking is automatic to keep things simple. When we first put auto-block in we thought, 'I know, this is way too easy.' But then we thought it was pretty fun just to walk around deflecting shots and stuff. It also makes the game pretty close to the movie, too. When you see the movie, you'll see the Jedi are so not interested in anything that's attacking them. They're so cocky and so good. They're just not worried about anything." In the end, though, *The Phantom Menace* is hardly a cakewalk. "You can't block everything in the game," he adds, "and you can screw up objectives and you can get caught in crossfires and things like that."

Sharpe demonstrates the differences in gameplay styles as he skips us to a level deeper in the game—which again showcases the gorgeous graphics engine and excellent art style that manages to capture the elegance of the *Episode I* imagery. "Puzzles are puzzles and pretty much whatever way we paint them they're going to pretty much work the same



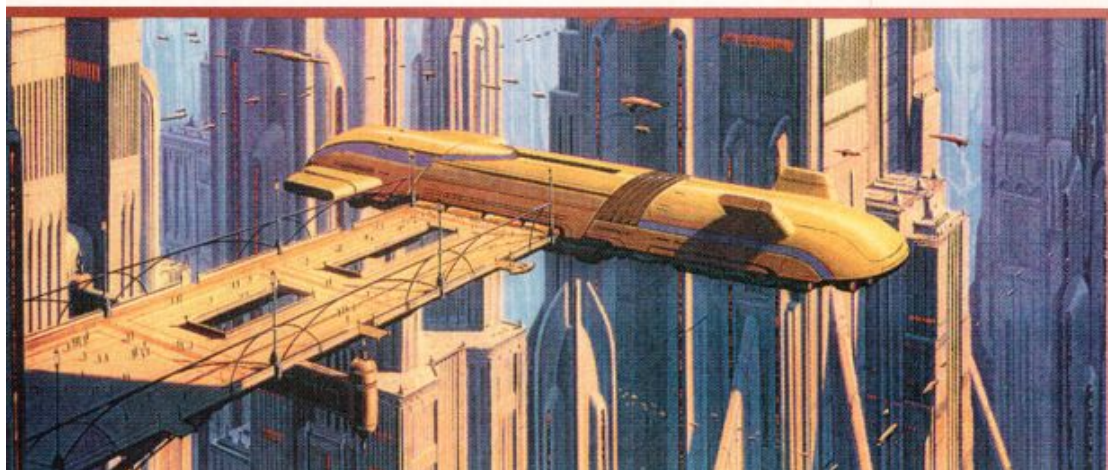
**Obi-Wan Kenobi**—Fresh from his Jedi training and already a bona-fide badass, Obi-Wan hopes to train young Anakin to be a Jedi.



**Queen Amidala**—A young queen (and the future mother of twins Luke and Leia), Amidala enlists the aid of Obi-Wan and Qui-Gon Jinn to protect her planet, Naboo.



**Qui-Gon Jinn**—A full-fledged Jedi master and Obi-Wan's mentor in the ways of the Force.





## (Double) Handle With Care

We all saw it—that wicked double-ended lightsaber Darth Maul whips out near the end of the first trailer. Cool? Yes. Dangerous? Very. Imagine all the things that can go wrong when wielding one of those gizmos...



- You'd pretty much have to kiss that sucker goodbye if you dropped it. Its end-over-end tumble would cut to the core of the planet.



- Swing the top blade forward too far in the heat of battle, and that pesky bottom blade might leave you with one shoe too many.



- Since each blade can be switched on independently, flicking the wrong switch could burn a nasty hole in your favorite Sith Lord T-shirt. And torso.

Illustrations by Lisa Blackshear



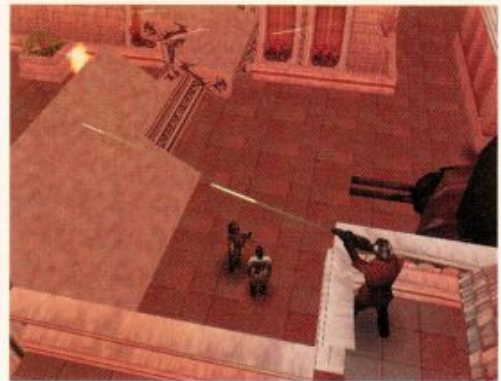
**Captain Panaka**—Queen Amidala's head of security and bodyguard.

way—whether they're push blocks or switches or whatever," Sharpe explains. "There were so many things we had to cover with different types of gameplay we decided not to focus too heavily on any one area. You pick up an item and you use it. It's not complicated. You don't have to use this item on that item. If you talk to someone and they need something, we'll guide the player along the dialog path according to whether they have the item in their inventory or not. We didn't want to get into a situation where we tried to push everything to new levels and end up not doing any of them well. We decided to put in all of the elements that we'd need as far as gameplay was concerned, and we wanted to do them so they were good. The only way we could do that was by not making them too complicated. The rules of good-game making dictate that you'd normally take one element and push it as far as you can. We've had to take a different approach and combine multiple gameplay

elements in order to capture the essence of the movie."

Of course, trying to capture the essence of any movie in a game is never easy—but imagine having to adapt what will surely be the most spectacular film ever. It led to more than a few headaches for the Big Ape team. "Moviemakers tend not to think of video game producers when they're making their movies," Sharpe and Ebert chime in together. "They set so much stuff in outside environments, and that's really not easy to do in a game. We've seen the movie and we've seen the sets, so we know what most things look like, but to capture the whole feeling of the movie, we have to cram a lot into what we're doing."

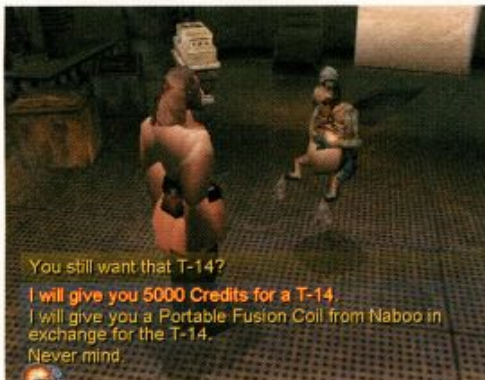
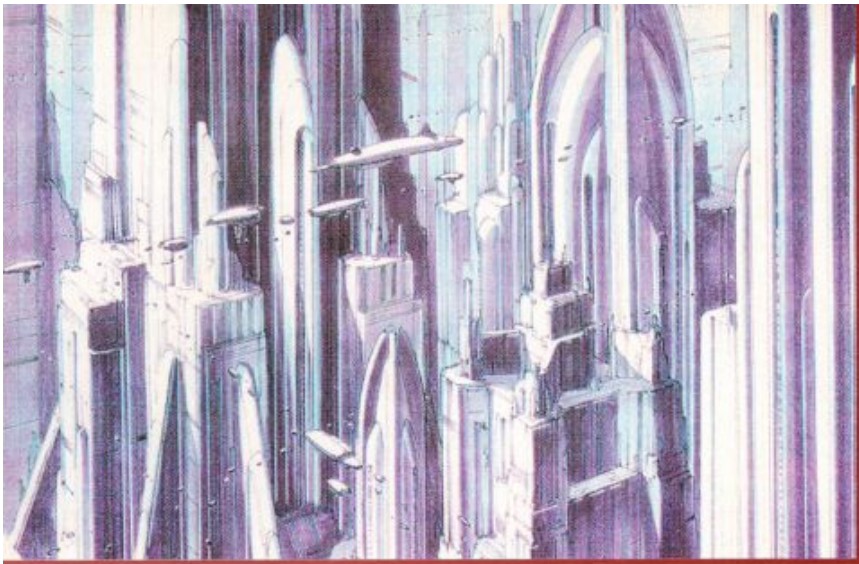
Big Ape had full access to everything Industrial Light and Magic was churning out for the film—although much of it came too late. "ILM supplied all of the art that we could possibly want," Ebert continues, "but because of time constraints we actually ended up not using it. These days



What's so odd about the planet Naboo?

- A) It's the first completely computer-generated movie locale.
- B) Droids are outlawed there.
- C) It's the first planet in a *Star Wars* flick with more than one type of terrain.
- D) George Lucas named it after a heroic sled dog.





Still a LucasArts SCUMM game at its heart, *The Phantom Menace* is crammed with aliens—including parts dealer Watto above and the twin twileks below—to play with. Dialog trees step you through the 4,000-line script.



C) Since Planet Naboo lacks a molten core, its honeycombed crust makes for enormous cave networks that fill with water near the coasts, creating massive swamps around the forested inland regions. So, this home of the Gungan people and Princess Amidala offers a mix of sea, swamp and forest terrain.



a game can take as long as a movie to produce, so by the time they'd done all of their rendering it was past the point where we really needed the art and we were pretty far in. We used some textures, but we didn't use any of ILM's models."

The challenges inherent in creating a game alongside the film meant the developers and filmmakers weren't always on the same page. In fact, the *Phantom Menace* even contains some cutting-room floor bits. "There are parts of the game that are based on scenes that were originally going to be in the movie that George [Lucas] has since cut," Sharpe explains. "We originally saw footage of all the main characters riding in a taxi on Coruscant, so we thought there must be a scene like that—so there's a bit in the game where everyone piles into a flying cab. That scene never materialized in the end, though. We suffer from the editing process of the movies. They'll maybe produce a scene and then for the sake of flow, they'll make a quick cut and leave something out entirely. But by that point we've already built something in the game around that visual so it ends up being somewhat irrelevant."

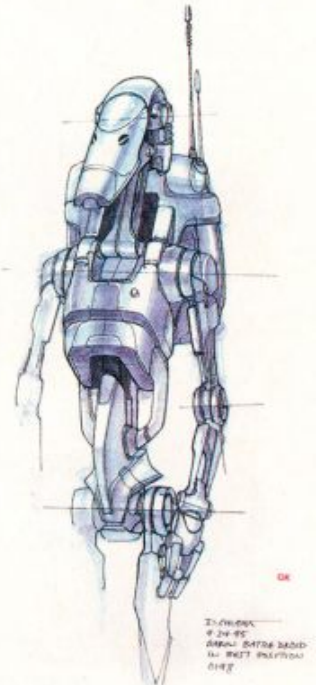
Sometimes, *Big Ape* strayed from the movie's plot intentionally, for the sake of gameplay. "We took some liberties in places," explains Ebert. "The weapons, for example, aren't that prominent in the movie. You've got the big guns and all of that kind of stuff, but we really tried not to get too carried away with it. Basically we didn't want to give you a gun just for the sake of giving you a gun, and to be quite honest you don't need anything. The lightsaber is such

a kick-ass weapon that you really don't need to use anything else. All the other weapons are really for the non-Jedi characters.

"The weapons we've used are from the movie to some extent—there are thermal detonators, but I don't think I've ever actually seen anyone use a thermal detonator in the movies, but everyone has them. We've got blasters—but what blaster is what? We didn't go crazy. Most of the time you're Obi-Wan, so we focused on making the lightsaber fun to play with."

Ebert has gone through a similar movie-to-game experience before, and he says things can get bizarre when it comes time to see the finished film. "I worked on the *Indiana Jones* and the *Last Crusade* game years ago, and I was working on it for ages before the movie came out. It's weird working on a project because after a while you forget what's in the game and what's in the movie, so you go to the theater and start thinking there are bits missing."

The *Phantom Menace*'s action and puzzle elements seem to fuse perfectly, but how does all that dialog fit into the gameplay? "The Mos Espa level on Tatooine is a good example of this," explains Ebert. "It's actually an example of the kind of game I would love to make, if I wasn't working on a game based on a movie. It's sort of a big, interactive world that you can play around in and talk to people. The whole town will pretty much react to whatever you do. If you just stroll into town and start killing guys, well, the town is going to react to you. I enjoy watching people play, because usually the first thing people do is





# Dateline: Episode I

Sept. 26, 1997

Lucas winds up the last day of *Episode I*'s principal photography after a 65-day shoot.

Meanwhile, special-edition rereleases of the original trilogy give us a collective woodie for the new film.

Power-ups? Power-ups? Jedi masters don't need no stinkin' power-ups—as this shot of Obi-Wan and Qui-Gon Jinn wading into Battle Droids shows.

wander into town and kill the first Jawa they come across. They can get themselves a little Jawa race war going on if they're not careful. Once you get into the town it becomes more like a LucasArts story game, like *Full Throttle* or *Grim Fandango* or something. There are dialog puzzles and inventory-based puzzles throughout this section. The reason we wanted to go this way with the game was basically because the movie went this way. It's not an action sequence in the film, so we followed suit."

Mos Espa is certainly an impressive-looking section of the game. The level is huge and filled with characters wandering around, almost like a town in any RPG. "It's actually very cool because there's a lot going on that's independent of your character," Sharpe explains as he guides Qui-Gon around the city. "People are getting on with their lives and talking to each other—and it has absolutely nothing to do with you."

Characters familiar from the original trilogy are milling around here too, and interaction with them—what they say and how they treat you—depends on a lot of variables. "You can go to some parts of the level," Ebert

explains, "and you end up getting a certain smell on your clothes, and the people in the town will react to that too. You can talk to anyone. Some people will have proper conversations but everyone has some kind of response. You can piss off the guards and some of the characters without too much trouble, but if you mess with others you can find yourself in some difficult situations."

Amidst all the character interaction, puzzle solving and lightsaber dueling, you'll find a few vehicles and secret bits, too. "There are 13 levels, give or take a few," explains Ebert. "We're saying 11-plus at the moment... but that's pretty loose. You do get to ride the STAP, which is the thing the Battle Droids ride, and you also get to drive the tanks to go around blowing the crap out of stuff. We keep the gameplay and the view fundamentally pretty consistent though. We didn't want to do something like *Shadows of the Empire* where there were so many different gameplay styles. We change camera angles slightly for the vehicle parts—but basically this stays pretty much the same throughout. The vehicles pretty much equate to how the ones in *Tomb Raider* act: As far as camera angles and control go, things stay pretty consistent."

Before we leave Big Ape's offices to speak with the PlayStation-conversion team, Dean and Mike show us one last level of the game, just to get us even more fired up about the whole thing than we already are. Remember the scene in the first trailer where Obi-Wan and Qui-Gon are dueling with Darth Maul? When Maul draws that second blade on his lightsaber, you have to agree it's one of the coolest movie moments ever, eh? Well, in the game that whole scene is going on as you're playing another section. The 3D engine used is so impressive, and the feeling of depth provided by the imagery is so convincing, that action takes place on two different planes of the level. The lightsaber duel rages in the foreground, while you continue to explore sections in the background. It's surprisingly effective, and when the speech and final music is eventually dropped in, it's going to be an incredible moment, we're sure.



Jar Jar Binks is to Qui-Gon Jinn what...

- A) ...Darth Vader is to Emperor Palpatine
- B) ...Luke Skywalker is to Yoda
- C) ...Boba Fett is to Jabba the Hutt
- D) ...Chewbacca is to Han Solo

## Wars on the Web

Surprise, surprise—the Internet is crammed with more *Phantom Menace* rumors than Chewbacca has fleas. But amidst the goofball reports (Charlton Heston as the voice of Yoda?) you'll find some bona-fide behind-the-scenes tidbits, pics, plot points and even shots of prequel toys. Thanks to their network of spies and insiders, the following fan-run sites consistently separate the facts from the bantha fodder. If you're a spoiler seeker craving the kind of *Episode I* deep-throat dirt they just don't post on the official site at [www.starwars.com](http://www.starwars.com), click this way...

[www.theforce.net](http://www.theforce.net)  
[www.jedinet.com](http://www.jedinet.com)  
[www.newsdroid.com](http://www.newsdroid.com)  
[www.countingdown.com/starwars](http://www.countingdown.com/starwars)  
[www.starwarz.com](http://www.starwarz.com)  
[www.echostation.com](http://www.echostation.com)  
[www.virtualedition.com](http://www.virtualedition.com)  
[www.toshistation.com](http://www.toshistation.com)  
[www.maulrats.com](http://www.maulrats.com)  
[www.sirstevesguide.com](http://www.sirstevesguide.com)



EGM  
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D) Jedi Master Qui-Gon Jinn runs into Jar Jar Binks early in the film, and Jar Jar soon becomes his inseparable sidekick, just as Chewie never left Han's side. Jar Jar, however, is far clumsier and whinier than stalwart Chewbacca.

## On the Portside...

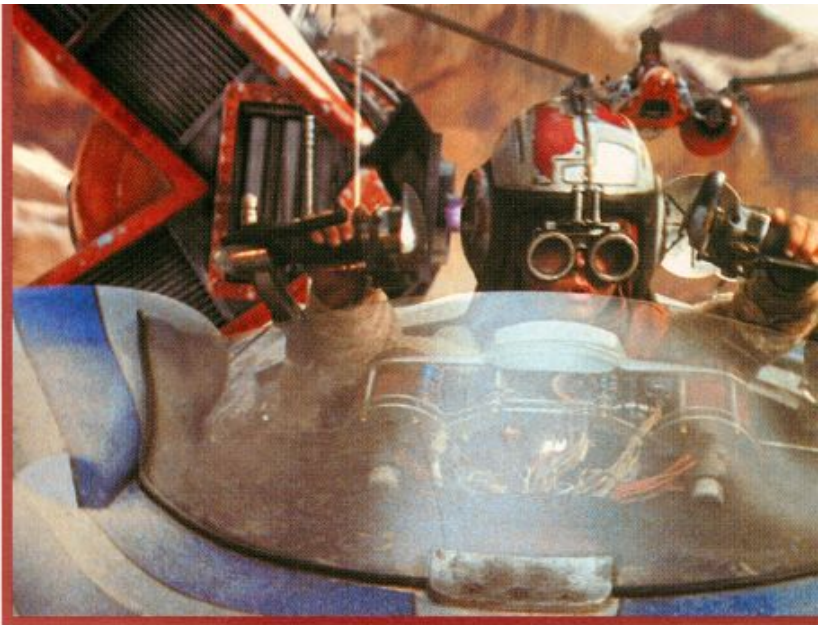
They may be up against an ultra-tight deadline, but the small team of coders porting *The Phantom Menace* to the PlayStation have one thing going for them. "Big Ape originally designed the game with the console in mind," says senior programmer Nick Pavis, formerly of Codemasters and now working in-house at LucasArts to bring *Phantom Menace* to Sony's system. "The poly counts are about OK, the interface is pretty simple, save files fit OK on a memory card. It's just a really efficient setup."

Of course, porting the game wasn't simply a matter of fiddling with the poly count and sending it on its way. For one thing, the PC version of *Phantom Menace* makes use of LucasArts' patented iMUSE system, which blends John Williams' soaring score from one tune to the next depending on events in the game. And while interactive music isn't new to the consoles (listen to *Banjo-Kazooie*), a dialog-heavy game that spools changing music from the CD is a definite first. "They have something like 4,000 lines of dialog," explains Pavis. "They weren't gonna have all that speech on the PlayStation, but we said you have to have it, because it's an important part of the game."

"So we spent a little time researching how we were gonna do interactive music and dialog and create an iMUSE system for the PlayStation. It's pretty neat. It allows you to stream different tracks off CD and have them loop seamlessly and go from one to the next while having dialog at the same time. The closest thing to it is in *Metal Gear Solid*, where they have interactive music in MIDI, but this is actually original score spooled off the CD and being interactive."

Sure, the PlayStation version of *Phantom Menace* won't look as pretty as the PC game; it lacks the hi-res sharpness and filtered textures of the high-end hardware. But the PlayStation has its own bag of tricks. Expect to see plenty of slick lighting effects as you deflect laser bolts with your lightsaber. And ultimately, the porting team is relying on the system's knack for pumping out massive numbers of polygons. "We're from the console school," Pavis says, "and I really hate the mentality of 'you can't do this on the PlayStation' or 'you can't do that on the PlayStation.' I think we can in a lot of cases. Even though the PlayStation

doesn't do perspective-correct mapping, even though it doesn't do bilinear filtering, it can still output a lot of



LucasArts programmers Pat Costello, Jon Menzies and Nick Pavis are bringing *The Phantom Menace* from the PC to the PS—with all 4,000 lines of dialog and nearly every poly intact.

polygons and pretty much match what they're doing."

With the deadline looming (the team is only getting about three months to port the game) Pavis and fellow senior programmers Jon Menzies and Pat Costello are facing a lot of long days and late nights in their cramped alcove at LucasArts. But Pavis is convinced that *Phantom Menace* will go beyond being a solid port. "I think it's better as a console game than a PC game," he tells us. "You don't worry about using the keyboard and which key turns on your lightsaber. You just pick up the joypad and go."







## STAR WARS EPISODE I RACER

While Big Ape wraps up *The Phantom Menace* in the non-descript confines of its Northern Marin County offices, work on *Racer* proceeds in-house deep within LucasArts' San Rafael headquarters. The team behind the game came together from various LucasArts Star Wars projects, including *Shadows of the Empire*, *Jedi Knight* and *Rogue Squadron*. *Racer* is being developed simultaneously for the Nintendo 64 and PC, with all future versions building off those two. Although development nitty-gritty didn't kick off until last year, *Racer* has been in the planning stages since 1996, when portions of the new film became obvious candidates for video-game treatment. "Back in '96 ILM had done an early animatic of the podrace, so we knew early on that we wanted to do a racing game based on this sequence," Jon Knoles, *Racer*'s project leader and lead artist, tells us.

But while pod racing seemed a perfect fit for a video game, the *Racer* team faced hurdles from the get-go. "One of the challenges was getting a game based on a movie to come out when a movie comes out—which rarely happens, and when it does the game often doesn't resemble the movie," Knoles explains. "But we were fortunate early on to have good reference material, not final reference, but good placeholder reference."

So, working with sketches instead of ILM's own computer-generated models, the game's artists built their pods from scratch using 3D Studio MAX. The Tatooine track featured in the film was given a similar treatment, while the rest of *Racer*'s courses are exclusive to the game and have nothing to do with the movie. "They had a sketch for the track in the movie," Knoles says, "and our Tatooine track is based on that sketch. But they ended up cutting out huge portions of the track to make the scene last a specific amount of time, so we have a lot of surprises in our track. You'll also see some familiar areas, scenes that look right out of the trailer."

The *Racer* team's next obstacle was a doozie: Since pods cruise at 600 miles per hour, how could they re-create this extreme speed in a game? "Imagine taking Daytona in a 15-second lap," Knoles says. "That's how fast you're going, and that presented a few technical problems for us. You end up driving a very small thing in a very large world, since the tracks need to be so expansive, and interacting with other racers is key. You really want a lot of bumping and grinding going on, because it's a big part of the race in the movie. When you're going at these speeds, it's like flying in formation with WWII fighters—it's a little hard to ride bumper to bumper."

Aggressive AI was one solution to keeping races tight, but, more importantly, the developers wanted to stick a lot of opposing pods in the race with the player. For the N64 version, they wanted to cram 12 other vehicles on the raceway, but that goal came with its own set of challenges. "These pods aren't all a Chevy with different paint jobs," Knoles explains. "They all have unique textures and unique models that look so different. Each pod model took more RAM than the usual car models in a car-racing game. We kept hitting that ceiling in the N64 in the amount of available RAM. You just can't load any more racers into the game. It took a lot of tucking, cutting and rebuilding to get the 12 racers on the track with the player."

Eric Johnston, *Racer*'s lead programmer, adds that despite all the squeezing, the game's pods are still presented with a hefty amount of detail. "The poly count for the other vehicles is still pretty high as far as racing games go," he says. "They go from 20 polygons to 1000, basically." And here's a cool bonus if you have a RAM Pak: Not only does *Racer* take the *Rogue Squadron* route and jump to hi-res when you pop in the Pak, it also adds more opposing pods on the larger tracks. The number of extra racers varies per track, however. The game's target frame-rate is 30 frames per

## Podracing 101

If you watched the *Episode I* teaser trailer, then you already caught a glimpse of pod racing, the often lethal, lightning-fast sport that makes up the meat of *Racer*'s gameplay. The movie's race is held on Tatooine, on the rugged outskirts of Mos Espa, where young Anakin Skywalker is growing up in indentured servitude with his mother, Shmi. And lo' and behold if we don't see a familiar crime boss hosting the Mos Espa race—none other than Jabba the Hutt, a full 30 years before becoming the galaxy's most notorious blobster.

According to the film, hosting pod races is one of the ways young Jabba built his fortune, since the sport supports so many underworld activities. "Pod racing's on the verge of being illegal, like those races we used to have in the Nevada desert," Knoles tells us. "You're not supposed to do it. The emphasis is not on safety here. Rather, there's a lot of gambling going on—gambling with lives as well as money."

Pay attention to the pod racer drivers when you see the film, too, since they're probably the craziest-looking critters to appear in *Episode I*. And they look like oddballs for a reason. "All the podracers are alien," Knoles explains. "Many have multiple arms, because pods are such complex vehicles that racing them is something humans just don't have enough limbs or the reflexes to do. But Anakin has this thing with machinery, which will be with him for the rest of his life, and he has the benefit of the Force, of course."



When does George Lucas plan to have *Star Wars: Episode II* ready for theaters?

- A) 2001
- B) 2002
- C) 2003
- D) Never. This is his last *Star Wars* film.





## Dateline: Episode I

Nov. 20, 1998

The initial teaser trailer is released in theaters, three days after its pre-release in limited markets. The trailer is such a draw that even people who aren't female sit through *Meet Joe Black* to catch a glimpse of *Episode I*.

second, and the PAK will only add as many extra pods as that frame-rate will allow. Note that higher-end platforms such as the PC, Mac and Dreamcast will support more racers on the track.

Just as the team needed lots of pods on the starting line, they also needed courses large enough to give the lightning-quick vehicles room to run. "A brand-new engine was built in-house especially for this game," Johnston tells us. "It was essentially taking some of what worked really well in *Shadows of the Empire* and tuning it specifically for a racing game. Our emphasis was that we wanted the tracks—rather than being trenches—to be worlds we could design from the beginning. They're a lot more freeform than in a typical racing game. For example, the Tatooine track looks a whole lot like the one from the movie, and you don't feel like you're racing at the bottom of a funnel the whole time.

"Our level builders were pretty much allowed to create any world they wanted and then lay a track through it, instead of the other way around. In fact, it wasn't even necessary that they have a road. A couple courses are not road-based at all, and you feel like you're on an off-road adventure."

In the end, Racer's level builders created 23 tracks scattered across eight planets (seven planets host three tracks, while Tatooine hosts two). Expect a few bonus courses, too. In the game's Circuit Mode, players compete to become the podracing champion of the galaxy by beating the Boss racer on each track, which in turn opens that Boss' pod as a playable vehicle for the single-race mode, two-player mode or when you begin a new circuit career. Eventually, you'll go up against Sebulba, the droopy-faced final Boss whose pod is loaded with dirty tricks.

The planets pack the usual variety of fantasy-racing-game terrain. You'll see an ice planet, a lava world, a WipeOut-like city course set on an asteroid penal colony. None of these worlds appears in *The Phantom Menace*. "Everything's new, with the exception of Tatooine as it will appear in the movie," Knoles says. "All the planet names in Racer, all the planets themselves, those are all created from scratch, just classic *Star Wars*

stuff except 30 years in the past. We're trying to open up new territories, just like we did with *Shadows* and Jedi knight and any other game we worked on that had us inventing new locales. There are other planet locations in the film, but when you see the film you'll realize why they don't hold pod races on them."

The courses all vary in size, usually according to their order in the game. "Since each planet has three tracks," Knoles adds, "the first one is shorter, the second one a little longer, and the third one a little longer, although not always. We have a track that's about five miles long and takes 30 seconds to lap. The scale of our final Tatooine track is approximately 30 miles, and you're covering 10 miles per minutes, so it works out to 400 to 600 miles per hour scale speed. That's a little faster than the pods in the movie, where they're hanging around 300 to 400 miles per hour and hit about 550 miles per hour when they're really booking. ILM plays with their numbers to make it feel right on film, and we fudge our numbers to make it feel right for us."

All tracks have multiple shortcuts and hidden paths; keep an eye out for breakaway walls and out-of-the-way routes you can only reach by jumping your pod just right. Advanced courses are twisty and crammed with stomach-churning dips and gaping chasms. Put simply, this is a game that, like EA's excellent *Beetle Adventure Racing*, is heavy on exploration. "At any point, you can drive off the road and cruise through the country," Knoles says. "Like in Tatooine, for instance, at any point you can drive up on the hills, although you can't get too carried away. This is a racing game, after all. There will be a few surprises spread about here and there, although I wanted to be a little more obvious and give people the cool stuff in their face. The Jawa sandcrawler was going to be a bit more off the beaten path, but it's really cool to drive under that thing, so we stuck it in the middle of the road."

All the tracks pack hidden details that you'll want to hunt down and see. "On the penal colony world," Racer's product manager, Brett Tosti, says, "we're gonna have a big interrogation-type ship in one of the shortcuts that'll chase you and fire at you

What inspired the look of Episode I's Battle Droids?

- A) Humpback camels
- B) Shogun warriors
- C) The original Imperial stormtroopers
- D) African tribal art



As you'd expect, Racer offers multiple control setups, but the developers are even toying with the idea of sticking in a configuration that matches what you'll see in the film. In *Episode I*, the alien racers steer their pods by working two throttles, one for each engine. The game may let you plug in two joypads to simulate this control style, with each analog stick controlling a separate engine. "You find yourself going like this," Knoles says, taking a joypad in each hand and holding them out as if they're handlebars. "You really understand just how hard these things are to drive."



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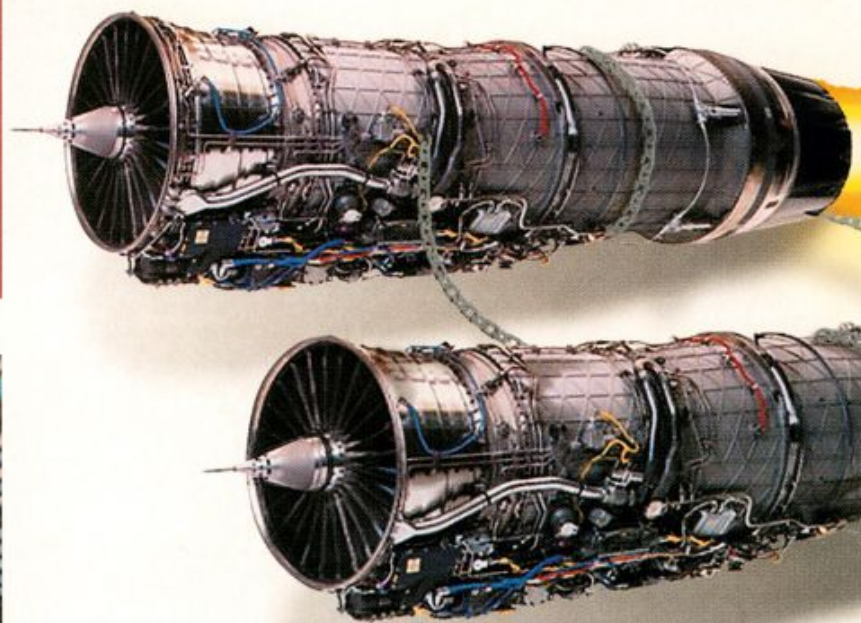
## Dateline: Episode I

April 30, 1999

Grab your lightsaber and ewok pelts and hyperspace to Denver, Colo., for the *Star Wars* Celebration fan event. See games, *Episode I* celebrities and about 40,000 fellow *Star Wars* freaks. Call 800-TRUE-FAN for ticket info. Attendees wearing Klingon costumes will be teased until they cry.



D) ILM concept designer Doug Chiang has stated that the Battle Droids are based on the stylized and angular forms of tribal African art. "There is a danger in designing the future," he told *WIRED* magazine. "Things that are too fanciful date very quickly. The future needs a past."

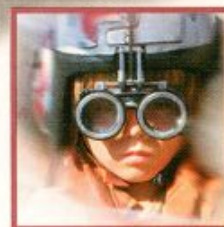


because he thinks you're escaping." Also look for asteroid-filled zero-g tunnels that your pod will glide through.

Since *Racer* features multiple tracks set in the same planetary environments, it's fallen back slightly on the racing-game convention of building later courses off previous ones. Yet it doesn't re-use track portions to the obvious extent found in *Ridge Racer*. "We have a planet called Endo Prime, for instance, which is a snow planet," Knoles explains. "The first track there just takes you on a little part and you see glimpses of areas where you'll be racing on the second and third tracks later on. They may be hidden behind an avalanche or something. Each track is more of an expansion on

the first, and sometimes they share a half-mile stretch, but really each track is mostly unique. In a couple of locations, we turn the race around so you drive backward and then we add a huge new portion. No one will feel like we added a little road and suddenly it's a new track."

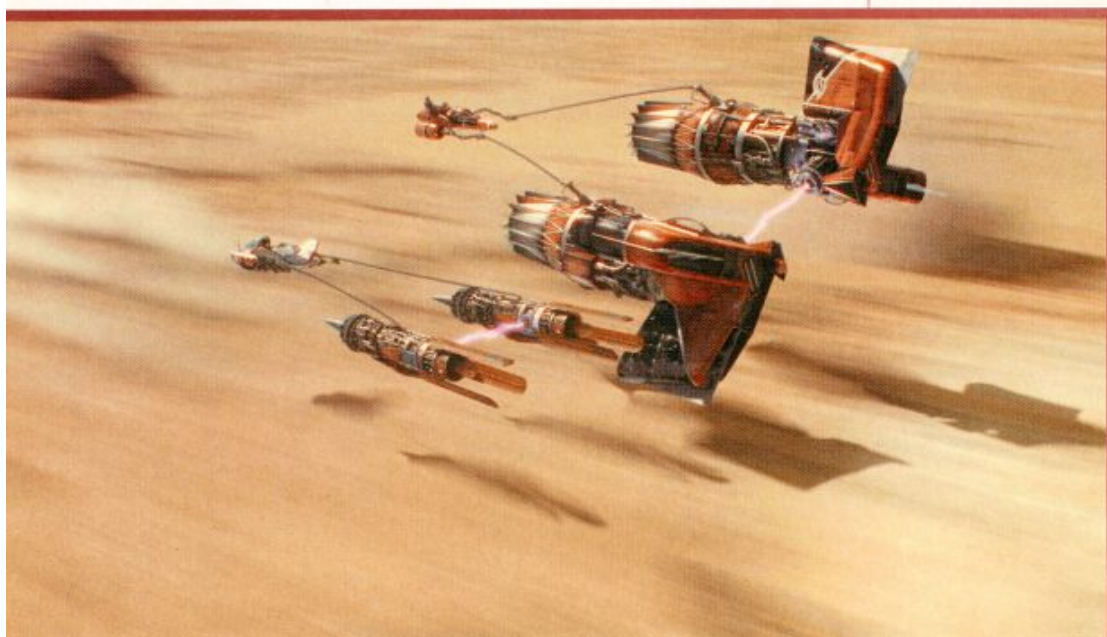
One game Knoles and his team unabashedly admit served as inspiration was *Wave Race 64*, which offers a level of control finesse that applied well to *Racer*'s chariot-like pods. "By pushing forward on the stick, you go faster but turn shallower, just like in *Wave Race*," he says. "By pulling back on your pod's engines, you can turn sharper but it slows you down. And you can do a lot of things in *Racer* to get through tricky areas, like



**Anakin Skywalker**—Before he became the infamous man in black, Anakin Skywalker was an adventurous boy on Tatooine with a knack for machinery. This gift gives him an edge in podracing, a sport usually reserved for multi-limbed aliens with the dexterity to drive the complicated machines.



**Sebulba**—Tatooine's podracing champion and the final Boss of *Racer*, Sebulba is a cheater who'll do anything and everything to win, including flaming you with his engines. Sebulba's a strange-looking dude, with legs that also seem to function as arms. Like all alien podracers, he uses every limb he's got to control his machine.





# A Pod in Every Garage



## Dateline: Episode I

May 3, 1999

A mountain of *Phantom Menace* merchandise will hit store shelves like a ton of ewoks, as this is the day Lucasfilm licensees will unleash their biggest wave yet of *Episode I* toys, trinkets and promotional tie-ins. Expect Hasbro's microchipped action figures and LEGO's vehicle sets to make the biggest splash.

rolling on your side."

Yanking back on the stick after you jump keeps you airborne longer, while pushing forward cuts jumps short. Holding forward also charges turbo. Once charged, you can boost to speeds exceeding 1,000 miles per hour in faster pods. Boosting too long overheats your engines, however, and you'll get a flameout if you don't ease off the gas.

Unlike *WipeOut*, *Racer* is not a combat-racing game. None of the pods, except Sebulba's, carries weapons. Instead, it's more like *F-Zero X*. You can damage opponents by ramming them, or take them out of commission (and earn access to their junked parts) by forcing them into canyon walls and such. In some cases, you can even use the terrain beneath your pod to screw pursuers. "One level has a methane lake you can cruise across," Tosti says. "If you do a speed boost on it, the whole lake catches on fire, so all the players who come after you will take a small amount of damage."

Roughing up opponents or flaming out your engines will take its toll on your own race performance. "We handle damage really subtly in the beginning," Knoles explains, "but over time, you begin to notice that your craft is pulling almost like you have a flat tire, and the engines will smoke and sputter and spark." Since the game's races don't have pit stops (although one's featured in the movie), your only recourse when damaged is to hold the repair button, which acts as an on-the-

fly pit stop. It slows you down considerably, but it keeps you in the race while your systems fix themselves. Of course, you could always go easy on the repair button and hope your pod makes it across the finish line in one piece, at which point special droids you purchase called pit droids fix your pod between races.

At least four pods, including Anakin's, will be available when you first start the game. From there, as you beat the Boss racer of each track and unlock his pod, you'll eventually open 23 craft. Sebulba drives the last pod, and you earn his craft once you beat him on the final track on Tatooine. And here's an interesting bit of trivia: *Racer* actually contains a few podracers that you'll never see in the film. "When they originally started out, there were going to be 22 racers in the movie's pod sequence," explains Knoles, "but they cut it down to 18. We got the sketches for the ones they cut and they were kinda cool, so we said, 'Hey, let's build them.' We end up having all 18 from the movie, plus the extra ones and the pilots that go with them, and a couple more secret ones, too."

As you'd expect, each pod has varied performance capabilities and is fully upgradeable (see Pod Mods sidebar). Anakin's compact pod boasts better acceleration than most, while bigger racers have higher top speeds and more efficient cooling systems for extended turbo. All the pods handle differently, as well. "You do feel different slipperiness on different surfaces," Johnston

Playing *Racer* had us craving the real deal, so we put together this shopping list of stuff you'd need to build your own, if not exactly street-legal, pod hotrod:

- **1969 Chevy Chevelle**—As the passenger-pod portion of your homemade machine, the whale-size Chevelle comfortably seats five, and you just can't beat that ol' Detroit steel for raw durability.

**Price: \$5,000**

- **Two Pratt & Whitney F100-PW-229 jet-turbine engines**—These are the same turbines that propel F-16 and F-15 fighters, and they look almost identical to the engines pulling Anakin's pod. A bit pricey, though.

**Price: \$5 million each**

- **210 feet of surplus Navy destroyer anchor chain**—Divided into two 100-foot strips, this chain will link your Chevelle to the engines, as well as support wiring for throttle controls, status readouts and the front turn signals. Use that last 10 feet to tie the engines together.

**Price: \$1,000**

- **Alpine CDA-7940 stereo system with eight XR 12-inch subwoofers and four MRV-1001 amplifiers**—What's the point of owning your own podracer if you can't cruise to your favorite tunes? And you'll need the power of Alpine's high-end system to hear your '80s hair-metal compilations over the turbine whine.

**Price: \$5,000**

We hate to poop on your party, but bear a few cautions in mind before you fire up your pod for that morning commute. Safety goggles are a must if you plan on punching the afterburners. Always wear your seatbelts. And if you're really concerned about personal safety, dive in the nearest ditch the second you activate this jet-powered sucker. "Two F100s would not really be a good way to get around," Pratt & Whitney spokesman Mark Sullivan tells us. "Each generates about 30,000 pounds of thrust, which works out to 24,000 horsepower per engine. If you hooked them up to a car, it would rip the thing to pieces quite quickly. I don't think you'll see these pods on the freeway anytime soon."

\* Add tax, license and doc. fee. Prices based on qualification for all rebates or cash equivalent. All incentives applied. Must qualify for college-grad rebate. MSRP may not be the actual price at which podracers are sold.

Which *Star Wars* personality does not belong in this list and why?

- A) Anthony Daniels
- B) James Earl Jones
- C) Frank Oz
- D) Ian McDiarmid







LucasArts' Racer team includes, top row from left, Paul Topolos, Paul Zinnes, Lisa Wong, Armando Lluich, Christina Napier, Mark Blattel, Livia Mackin, Amit Shalev, Brad Post, Nathan Stapley. Bottom row from left: Mark Haigh-Hutchinson, Jon Knoles, Justin Graham, Eric Johnston, Brett Tost, Jacob Stephens, Sun-Inn Shih, Duncan Brown, Camela Boswell, Japeth Pieper, Dino Ago, Darren Johnson, Clint Young, Jim Rice, Bill Stoneham.



B) While the other guys reprise their roles for the new film (Daniels as C-3PO, Oz as Yoda and McDiarmid as Palpatine before he was Emperor), only Jones doesn't return as the voice of Darth Vader. Of course, young Anakin is years away from becoming the evil Sith lord.



adds, "because the repulsorlift has sort of a gripping element to it. Certain vehicles have weaker repulsorlift generators so they fly around corners really wide, while others are really grippy and tight. There's a lot of vehicles. They all look very different from each other, so we want them to feel different from each other."

To get the right feel for these unusual craft, Johnston spent a lot of time experimenting with the game's physics models—and even got his two big dogs into the act. "I put a harness on both of them and let them pull me on my skateboard," he tells us. "We rode around the neighborhood, and that gave me an idea on how the pod should swing back and forth behind its dual engines."

In the end, the game's Pods handle identically to those created just a few miles away in ILM's studios. "Early on, we had good communication with the head honchos ILM before they got swamped," Knoles says. "They were really excited to see our game and what we were doing, because they hadn't solved the physics problems either. After all, they just don't animate these things; they have to deal with the physics, too, or the pods won't look right in the film. And it was funny, when we first showed them the game and they showed us the first few shots from the race sequence, it was amazing how similar we were all working. Their pods act just like ours do."

And that's really the overall goal of the Racer team—to make a game that looks and feels exactly like *Episode I's* podrace sequence. That meant Racer had to look as good as it played. "Early on there was a conscious decision

made to not go the graphics route of games like *F-Zero X*, which, as fun as they are, aren't filled with a lot of eye-candy," says Knoles. "With this game, it's essential that it looks right.

You're going to come out of this movie and you're gonna want to play this game. The podrace sequence is going to be in your head just like the trench run in *Star Wars* or the speeder bike scene or the walker battle. If you turn the game on and just have blocks flying around on an invisible road somewhere, you're gonna be hugely disappointed."

The team's attention to graphical perfection is obvious as soon as you look at your pod, which bristles with animated engine parts, spherical shapes and dozens of other details. "Any one of the parts of Anakin's pod is as many polygons as a typical car in a typical car-racing game," Knoles adds. "The whole vehicle in its entirety with the cables, binder beam, flames and all that cool stuff is about 1,000 polygons, which is roughly a third of what the N64 can handle at a decent frame-rate. To do anything less would just be criminal, because you see these

## Dateline: Episode I

May 19, 1999

*Star Wars: Episode I—The Phantom Menace* will open in theaters across the country. Everything not related to the film will cease to exist on this much-anticipated Friday.







## Dateline: Episode I

May 24, 1999

Star Wars: Episode I  
The Phantom Menace  
will hit stores for the  
PlayStation and PC. Star  
Wars: Episode I Racer  
will be released for the  
Nintendo 64, PC and  
Macintosh. Players will  
squeeze in quick games  
between visits to the  
gigaplex to see *Episode  
I* for the 20th time.

things in the movie and they're mind-blowing."

Such fancy visuals don't come without a price, though, and in Racer's case, the multiplayer mode took a bit of a hit. The game only supports two-player split-screen racing instead of four players. "Because of the complexity of our vehicles," Knoles explains, "a four-player mode would force us to cut down the overall level of detail to a point where you'd be flying kites through an extremely foggy environment. While it'd be cool to put four-player on the box, I wouldn't sacrifice the game to make it happen." Two players can race on any tracks and use any pods that have been opened in the one-player game.

Right, so we know Racer packs amazingly detailed pods and moves at blazing speeds, but does it live up to the stellar sound-effect standards set by Rogue Squadron? Well, what would you expect from developers who have a direct line of communication with Skywalker Sound. Trust us—the pods in the game will sound just as cool as their on-screen counterparts, and Racer supports Dolby Surround sound, too. But what the heck does a revving podracer sound like? "The sounds are in the same vein as X-wing, TIE fighter and landspeeder sounds," Knoles says. "George Lucas is always looking for people to feel familiar with the objects he's putting on the screen, so there's a lot of car sounds that found their way into the podrace. There's a lot of that Formula One shiftbox pounding going on—pow-pow-pow-pow!"

Unlike Rogue Squadron,

however, Racer is much leaner in the music department. "We're not going to have a looping soundtrack throughout the game," Knoles says. "Music in racing games always annoys me, unless it's really cool like in WipeOut. Most of the time, the first thing I do with a racing game is switch off the music, and I think most gamers might agree." The game will blare short bursts of music for key events, such as when you enter a mysterious cavern or pass a track's Boss racer.

The Racer team is hoping to cram in a lot of speech. For starters, all the opposing racers will shout taunts in Jabba's language, Huttese. Watto will have at least 40 different things to say when you enter his shop. None of the speech will be digitized directly from the film, however. "We were able to use a couple of actors who did some of the voices in the movie," Knoles adds, "but everything they say is new, with the exception of Jabba going ooooh once in a while."

And although Knoles dealt with actors from the movie, saw update after update of the film's podrace and was generally bombarded by all things *Episode I*, he managed to avoid having the entire film spoiled for him as it was for the guys over at Big Ape. "Given my position, I was asked early on if I wanted to watch a screening in its entirety," Knoles says, "but I've consistently avoided watching more than I need to. I'll see any ILM shot of the podrace for the sake of the game, but I wanna go into that theater when the film opens like I did when I was 8 and saw the first one. I wanna go, 'Wow.'" 🍌

## Pod Mods

Like an intergalactic grease monkey, you can upgrade your podracer. After each race, you'll head to Watto's parts shop and spend winnings on pod enhancements in several categories, including acceleration, top speed, traction, air braking, cooling and repair. Each part category has about six levels of upgrade, so you can either focus on improving one area of performance or spread enhancements across your machine. "The better cooling part you get, the longer you can hold the boost button without overheating your engine," Knoles offers as an example. "And the maximum cooling part you buy will allow you to indefinitely hold down boost, if you can handle the race at those speeds."

As an alternative to buying new parts, you can force opponents to crash, then pick apart their wrecked pods in Watto's junkyard and snag damaged parts dirt cheap. The more enemies you wreck, the more junk parts you'll find. Damaged parts don't boost performance nearly as much as new stuff, but that's where Watto's pit droids come in. Not only do these expensive droids fix your pod between races, they also take your junkyard parts and make them as good as new. "The more pit droids you buy," says Knoles, "the more of those customized parts you can get fixed. So you can buy a bunch of crappy parts and they'll get fixed really quick and be good parts."

In the end, you're gonna need a well-balanced supermachine to beat Sebulba, whose pod packs the best of everything—even nasty secret weapons. "If you won all the races and bought all the best parts," Knoles says, "by the time you face Sebulba, it's gonna be pretty close."



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