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From the Back Office, a Casino Can Change the Slot Machine in Seconds

By [MATT RICHTEL](#)

LAS VEGAS, April 6 — From his small back office in the Treasure Island casino, Justin Beltram may soon be able to change the wheels of fortune instantly.

Mr. Beltram, a casino executive, is the point man in a high-technology experiment that could alter the face of slot machines, and their insides, too.

With a few clicks of his computer mouse, Mr. Beltram can reprogram the 1,790 slot machines on the casino floor, adjusting the denominations required to play, payback percentages, even game themes.

Las Vegas is constantly tinkering with its slot machines, which generate more than \$7 billion annually in Nevada, roughly double that taken in by table games. Despite their growing popularity and an increase in overall gambling proceeds in recent years, casino operators want to win back more of the money their customers are now spending elsewhere — on food, lodging and other entertainment, or at Indian casinos or for online gambling.

In the past, changing out a slot machine was a complicated operation and entailed opening it, replacing the computer chip inside, then changing the glass display that markets the game's theme. The alteration usually took a day and could cost thousands of dollars, from ordering parts to modifying the machine.

"Now, I just come to my office, and select the program," said Mr. Beltram, the 28-year-old executive director for slots at Treasure Island, which is owned by the MGM Mirage. "With the technology, it takes 20 seconds."

The concept is being tested for the next few months under the gaze of state gambling regulators. If regulators approve, casino operators will be able to centrally adjust the slots to cater to different crowds — older players and regulars during the day and younger tourists and people with bigger budgets at night.

That could mean testing consumer confidence as well. Some critics wonder whether centrally controlled slots are not a few steps away from the distant, but instant and unchecked control enjoyed by Internet casino operators.

Mr. Beltram insists he does not plan to capriciously change the odds, which he said would be bad for repeat business and could run afoul of regulators.

The development of networked slots underscores the growing convergence of gambling and technology. Slot machines, once highly mechanized, are now highly computerized; only about half the machines have actual spinning cylinders. The rest are computer-

generated facsimiles that allow gamblers to play numerous animated reels at once, and induce them with the promise of bonus rounds. Gamblers now insert debit slips that track how much money they have, making the coins people once collected in buckets a distant memory.

Coming soon are high-definition screens that will enhance the animation to keep gamblers engaged and draw bigger crowds, and even better speakers to project crisp sound right at players.

More generally, casino operators have sought in recent years to use technology to offer new games and make a science of their business. They are experimenting with stocking blackjack tables with money chips embedded with digital tags that can automatically measure how much a gambler has wagered and on what kinds of hands.

Casinos also are testing wireless devices that would allow people to play games like Keno and eventually blackjack while sitting in public areas, like the swimming pool.

But these advances are raising some eyebrows. In the case of the new slot machines, regulators want to make sure the systems cannot be invaded by outsiders, while consumers want to know casino operators cannot too easily manipulate the odds, said David G. Schwartz, director for the Center for Gaming Research at the University of Nevada Las Vegas.

"Let's say you're playing at 2 and you're doing great and you come back at 6 and the pay tables have changed," Mr. Schwartz said, adding that he wondered how much latitude casino operators would have to change their returns.

He also worries that some players could receive preferential odds if, for instance, they are high rollers, thus creating an uneven gambling field.

By law, Nevada casinos must on average return at least 75 percent of slot machine wagers. The reality is they return more than 90 percent, casino operators say, though they do not publicize the figures. Also under the law, they cannot modify the payback percentages while someone is playing.

State law allows them to change the odds after a machine has been idle for four minutes, and then they must not allow anyone to play the machine for four more minutes. During that time, the screen must indicate a change is being made to the game's configuration, said Travis Foley, laboratory manager for the technology division of the Nevada State Gaming Control Board, who is overseeing the Treasure Island test.

Typically, those changes now are made in the middle of the night when there are fewer players in the casino.

Mr. Foley said the technology "does expedite the change" to a new theme, wager denomination or payback percentage. "But it's not a new capability."

For his part, Mr. Beltram said fierce competition for slot machine players would keep him from playing fast and loose with his odds. The bigger goal, he said, is to cater inexpensively to consumer demand. He cites as evidence a recent visit by a high roller from Rhode Island.

Mr. Beltram said the gambler, who liked to play slots in the high-stakes slots room where individual wagers can go from \$2 into

the hundreds of dollars, requested a \$25 Double Diamond slot machine. Mr. Beltram ordered the computer chip and glass plate from [International Game Technology](#), which makes the machine, and had them in place 24 hours later.

The lost day potentially cut into profits. If the customer had been able to play earlier, "Who knows what he would have spent?" Mr. Beltram said. As it turned out, the high roller returned a day later, played the new game and wound up winning money.

But a lot of money is left on the table with low rollers as well. It's just a matter of giving them what they want when they want it, Mr. Beltram said. "Throughout the day, there are more locals, so during the day we might have more video poker. At night, we might have more slots," he said. "Customers get stuck on themes they like," he said, and those themes can be programmed in.

Mr. Beltram said he expected the system to be in place by the end of this year or the beginning of next year.

Ed Rogich, spokesman for International Gaming Technology, said a similar test was taking place at a casino operated by the Barona Indian tribe, just outside of San Diego.

Most casinos already link their slot machines and can view their performance from a central server. The difference is that the latest advance is the first time casinos can push information out to all their machines, creating the potential for "dumb terminals," as they are known outside gambling, on which the software can be modified centrally, easily and instantly.

The concept of networked slot machines is undergoing a different kind of test down the street from Treasure Island at a casino called the Barbary Coast. There, near the front door, sits an enormous circular wheel of fortune slot machine with seats around it for nine players. In front of each player is a monitor on which they play an individualized version of the game. The twist is that a monitor in the center of the game, viewable by all, indicates which players have hit the bonus round.

At various points, those players who have hit the bonus round — meaning they are eligible to increase their winnings by a certain multiple — can cause the wheel of fortune in the center to spin; whatever number lands in front of each eligible player indicates the bonus amount.

The individual players are not affecting each other's outcomes, but the game creates a feeling of community, almost like craps players cheering for each other at the table.

Regular slot players say they have mixed feelings about the potential for the centrally controlled games.

Rexie Lestrangle, who lives in Lodi, Calif., and was recently visiting Las Vegas on business, said she welcomed the next generation of slot machines.

"I liked all kinds of pictures and noises and things happening," she said as she sat in Treasure Island playing Lawman's Loot, a penny slot machine with a reel of video images of cowboys, trains, settlers and bags of loot. "The old slots I don't like because they're boring."

But she said she did not have an opinion about the casinos using servers to change their slot machines.

"I just wish they would pay out more, obviously," she said.

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