

# TABLE GAME MANAGEMENT IN-DEPTH

By Linda Haelsen

**F**or casinos, table games such as blackjack and baccarat aren't just games of luck; they're big business. Every casino executive knows that effective table game management can help casinos turn a winning profit, and conversely, ineffective management can quickly lead to fiscal disaster. But what exactly makes for effective table game management, anyway? Table games and security expert Douglas Florence, director of the gaming sector for NICE Systems, says the answer lies in automating table game management.

**Linda Haelsen: Starting with the most basic of the basics, what is table game management?**

**Douglas Florence:** Table game management is a way for casinos to identify and track advantage players—and players of various skill levels, so the casino can do a better job marketing to them. Just like any business, casinos compete for customers, in this case, by rewarding or comping them.

The key is not to comp everyone the same. You want to comp players according to their value to the casino, so you need to know what that value is. Casinos can determine value through table game management. This takes into consideration many factors, such as how long players play and the average, minimum and maximum bets they place. It also takes into account how quickly they make decisions. Time is money, so all else being equal, if one player takes 10 minutes to make a decision and another

player takes 30 seconds, which player is going to have the greatest value? Obviously, it's the player who's getting greater action. You want to comp that player to entice him to come back to your casino. That's the idea behind table game management.

**LH: How do most casinos identify and track this information?**

**DF:** Table game management is still very much a manual observation process. I would say 95 percent of casinos still use paper-and-pencil methods for table game management. In contrast, casinos have very detailed electronic data on players who play slots, and that data, including coin-in, coin-out, jackpots and how quickly players make decisions, is captured automatically.

**LH: What are the problems with this manual approach?**

**DF:** Player ratings have really been guesswork up until today. If I'm a floor person supervising eight to 10 games, with four to six players at a table, I'm not going to be able to watch everybody—especially considering the way many casino pits are configured, with tables all around you. There are tables behind you, tables in front of you and tables on either side. You simply can't see all 60 players at once. You can only watch one player, one table at a time. Even if just one-quarter of the players want to be rated, they're not all going to be sitting at the same table. I am going to be guessing or asking the dealer to guess what kind of action those players are giving me—and the dealer can never really assess a player's skill level because he's busy dealing the game.



Douglas Florence

### **LH: So what is the future of table game management?**

**DF:** Instead of relying on manual observation, automated table game tracking uses a combination of video surveillance cameras and sophisticated analytics to observe and analyze games. With automated table game tracking, casinos have the ability to capture and maintain data on every spot of every table by tracking playing cards, player decisions, ID cards and game outcomes.

Let's say I'm going to rate players using automated table game management. The first thing the system does is identify the player and then associate that player to the spot or spots he's playing. If the player has a player ID card, and the ID is exposed on the table, the system can identify the number optically via an overhead camera and automatically bookmark the players and the dealer on the game. The system is also going to keep track of the decisions the player makes. It will keep track of the cards that are played, and if you have radio-frequency identification (RFID) on the chips, it will track the minimum, maximum and average bets that are made, and the duration of play. All of that data is captured and recorded.

### **LH: What can casinos do with that data?**

**DF:** One thing they can do is calculate the actual, real house advantage by determining just how smart the player is based on his decision strategies in the game. In the past, casinos would use a theoretical number, and that theoretical number might be 1.3 to 3 percent for all customers across the board. Essentially, it was just another guess, an arbitrary number. To really calculate the house advantage, and do it on an individual basis, you've got to look at 100 hands of play per player.

Once you've looked at 100 hands or more of play you should be able to tell just how accurate the player is with basic strategy. Basic strategy is a set of rules that say when you should hit, stand, split, double or surrender. With automated table game management, the casino can gauge how accurately players are applying these rules to the game, or how much they deviate from these rules. The system analyzes the player's decision strategy based on all of the circumstances of the game—deck penetration, deck composition and so on. It can accurately determine whether a player is skilled, nonskilled or a card counter. Even when a player is 100 percent proficient in basic strategy, the casino will still have a half of a percentage point advantage mathematically.

### **LH: Let's say I'm a casino executive and I know my house advantage vis-a-vis specific players. How should I use this information?**

**DF:** You should use it to make decisions. Do you want to invite this person back? How much money are you willing to give back to this player in complimentary goods or services to encourage him to come back to the casino again? Now I can give a player comps based on his actual skill level, based on the advantage that I have. For example, if I only have a half-percent advantage over a player, why would I give that player 3 percent back in comps? It doesn't make good business sense. Now the casino can use the actual skill level of a player to determine just how much to give the player in complimentary goods and services to ensure the casino's not losing money. It's very scientific.

### **LH: How do casinos do this today without automated table game tracking?**

**DF:** Most casinos are comping based on a theoretical advantage, meaning if the casino believes it has a 2 percent average advantage over all the players, it's going to comp everyone an amount less than that.

### **LH: What's wrong with that approach?**

**DF:** Let's say a casino makes \$1 million per year on table games but its budget is 20 to 40 percent of that million for complimentary goods and services. That means between \$200,000 and \$400,000 of the casino's wins will be used to comp goods and services to players. Experience tells us that by comping everyone the same, we could be giving out as much as 22 percent of complimentary goods in error. That is to say, the value of the complimentary goods would exceed those players' potential profit value to the casino. So in this particular example, I'm giving anywhere from \$66,000 to \$88,000 to the wrong people. That's a pretty big error.

### **LH: How would automated table game management help in this situation?**

**DF:** When I look at the skill level of my players and rank them from best to worst, I can now give complimentary money back accordingly, based on that curve. I can also decide which players are too good and will always have an advantage over the house. It's all about maximizing return.

### **LH: What else does the automated table game management system detect?**

**DF:** It can also catch dealer errors, which can have a substantial impact on the bottom line. Results show that a casino might typically catch one pay-take mistake per day per table using the system. If a dealer pays a losing hand or pays a push, essentially they've given that money away. You've got to remember that dealers might be dealing 2,000 hands per day, so they're going to make honest mistakes. We can now catch pay-take mistakes that would have gone undetected before.

### **LH: How does the automated table game management system detect these mistakes?**

**DF:** The system alerts in real-time to make you aware of pay take mistakes. The system knows the outcome of the game—who won or lost—and it can also track the chips. So if the dealer pays a bet and the system sees that the dealer paid a losing hand or a push hand, that generates an immediate alert.

### **LH: Isn't it enough to just have RFID in the chips?**

**DF:** RFID-enabled chips allow casinos to track the locations of chips on the casino floor, identify counterfeit chips and prevent theft. But RFID doesn't help you know the outcome of the game. Because the automated table game management system knows the outcome of the game, we can actually create an alert on a pay take mistake. Automated table game management makes RFID more powerful.

### **LH: What else can the automated table game management system tell you?**

**DF:** The system can automatically bookmark not only the players

on the game but also the dealers on the game using the dealer's ID tag. And it can keep track of dealer error and dealer reports individually that way. Alternatively, you could identify dealers by schedule. Capturing data down to the dealer level can provide a measure of just how productive your dealers are. For example, the automated table game management system can tell you the number of hands or rounds a specific dealer deals in an hour. It can reveal deck penetration or how accurately the dealer is cutting the deck. It can tell you the occupancy of that dealer's table. It can tell you how many people are utilizing that table. Having that information can also increase yield for the casino, because if you know which games create more action, you can make sure that you have the right games open during the right times of the day.

**LH: What should someone look for in a table game management solution?**

**DF:** There are different types of table game management solutions. Some companies offer an all-in-one solution that combines a shuffling machine, RFID chips and table game management, but those solutions have limited verification capabilities. By verification, I mean the ability to track what individual players are doing and to verify the outcome of the game. Others offer an automated table game management solution that actually tracks the cards' location on the table so it can spot cheating. For example, if two friends are sitting next to each other playing blackjack and one is dealt an eight and a five and the other gets a six

and a three, they could switch cards and both double down. This kind of system can detect that and alert security and surveillance about it, whereas other solutions that track cards coming out of the shoe wouldn't detect that immediately. This solution tends to be fairer to the player because it doesn't know the outcome of the game until the cards are exposed. Other solutions know the outcome of the game the moment the winning card comes out of the shoe, before anyone at the table even knows—and that's unfair to the player.



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Mark A. Clayton, former Member of the Nevada State Gaming Control Board, has joined our Gaming and Regulatory Law Department.

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