

INTRODUCTION TO SLOTS AND VIDEO G A M I N G



International Game Technology





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Introduction



Modern-day, casino-style gaming has been legal in the US for approximately 70 years. For most of that time, this type of activity was limited only to locations in Nevada. However, changes in the economy over the past 25 years have prompted many jurisdictions around the world to either institute or consider legalized gaming. Gaming today is a high-technology industry with its own history, products, and language. This fact makes the business of gaming unfamiliar territory for many new and potential gaming operators.

IGT compiled this *Introduction to Slots and Video Gaming* guide to assist the reader in understanding gaming machines and to help build a familiarity with basic operating principles and terminology. It is intended as a general introduction to both the casino and lottery gaming business.

The information in this guide is gathered from IGT's 25-plus years of experience in the design, manufacture, distribution, and marketing of gaming equipment (spinning reel and video gaming machines, and gaming management computer systems). Contact an IGT representative for more detailed information about any of the concepts introduced in this guide.

The Evolution of Gaming Machines

Gaming machines have been around for more than 100 years in the US. They have increased in complexity over the years from their humble beginnings as strictly mechanical devices dispensing candy mints or gum to sophisticated, state-of-the-art, microprocessor-driven machines.



The Mechanical Age

In 1899, Charles Fey invented the Liberty Bell machine, considered the forerunner of the modern slot machine. In the early years, most machines took tokens and paid in gum, mints, or “amusement coupons” redeemable for drinks, cigars, tokens, or cash. The 1920s saw the development of the “jackpot” concept where coins or tokens awarded to the player dropped into the coin tray of the machine. Although there were a few attempts to add electricity to mechanically operated machines over the years, gaming machine technology changed very little the first 60 years*. Significant changes in the past 40 years have revolutionized the operation of the slot machine – and the entire gaming industry.

* For a complete overview of the history of gaming machines, see *Slot Machines: America's Favorite Gaming Device* by Marshall Fey.

The Electro-Mechanical Age

In the early 1960s, gaming machines were boosted out of the mechanical age into the world of electro-mechanical operation. These machines featured electro-mechanical circuitry and motorized hopper payouts.



The Electronics Age

The 1970s saw the introduction of video poker machines powered by solid-state circuitry. These machines gave players a challenging new way to play – offering decision-making options not available on regular slots. This technology expanded in the following decade and video poker became an overwhelming success.

Modern Microprocessors

In the 1980s, the world of computer technology swept the gaming industry. The potential for new development exploded when the microprocessor met the gaming machine by:

- Offering flexibility in game and bonus offerings
- Making two-way communication possible between the microprocessor and internal components
- Enabling machines to direct player winnings to the credit meter, making way for faster game play and less reliance on coin-handling personnel
- Allowing for stepper motor technology and the creation of “virtual” reel stops which greatly expanded the possible reel stop combinations
- Creating more checks and balances which resulted in greater machine reliability
- Allowing the operator more opportunities to select the options most conducive to player preferences

All of these factors positively impacted gaming revenues for operators.

Microprocessor technology also proved to be a significant factor in changing the balance of gaming activity in the casino industry from traditional table games to gaming machines.

Machines became top revenue producers by winning patrons away from traditionally favored table games.



The appearance of dollar and higher-denomination games in the 1980s also influenced the industry. By the end of the decade, casinos offered a wide range of wager options, including \$1, \$5, \$25, \$100, and even \$500 games.

In 1986, IGT introduced its statewide *Megabucks*® progressive slot system in Nevada. This innovation combined microprocessor-powered gaming machines and modern communications in order to link gaming machines in casinos across the state. The system made it possible to direct a portion of every wager into one large collective jackpot. The opportunity to win multi-million dollar jackpots was attractive to players and resulted in a higher level of play for progressive machines.



The *Megabucks*® system was also the first to place the jackpot liability solely on the machine/system provider rather than the casino operator. After verification of the win, payment from the machine/system provider may occur in annual installments or a single discounted lump sum.

Due to the overwhelming popularity of the *Megabucks*® system, IGT continues to introduce more progressive *MegaJackpots*® gaming machines in jurisdictions across the country. Some of the most recognizable game themes in history are now part of linked-progressive systems.

In the early 1990s, the multi-game machine offered unparalleled choices to the player. With state-of-the-art computer-based electronics, players could now choose different types of games – simulated spinning reel games, a variety of poker games, keno, and video blackjack – all on one machine. It was no longer necessary for players to search the casino floor to find all the games they wished to play.

Additional advancements seen in the gaming industry during the 1990s were made possible by advancements in microprocessor technology:

- **Bill Acceptors** allowed players to insert paper currency into the machine for credits. This eliminated much of the need for casino personnel to convert a player's paper currency to coin and significantly reduced the back-of-house coin-handling operations.



- **Touchscreen Video Monitors** allowed players to choose their favorite games and game play functions such as "Spin Reels," "Deal/Draw," "Max Bet," etc., by pressing on-screen buttons.

- **Interactive Bonus Games** provided more ways to win with second-screen bonus game play. Players were now actively making choices that affected the bonus game outcome of video slot games.



- **Multi-Hand Video Poker** started with the advent of *Triple Play*® Draw Poker in 1996. Operators saw huge revenues because players could now play multiple hands per play on a single poker machine.



- **Multi-Denomination Game Play** allowed players to select from a variety of wager amounts on a single machine.



We're only a few years into the new millennium and there are several new innovations to add to the list:

- **Ticket-In, Ticket-Out (TITO) Game Play** ushered in a completely revolutionary concept for the player and casino operations. TITO systems, such as IGT's *EZ Pay*® Ticket System, make it possible for players to receive a printed ticket from the machine rather than coins when they are ready to "cash out." The printed ticket can either



be exchanged for cash or inserted into the bill acceptor of another similarly equipped machine to add previously accumulated credits to the credit meter of the new machine.

TITO streamlines casino operations by reducing the need for attendant-paid jackpots and hopper fills. Players spend more time actively playing. Another positive for players: Receiving payouts in the form of a ticket ends the necessity of carrying racks or buckets of coins when moving about the casino.

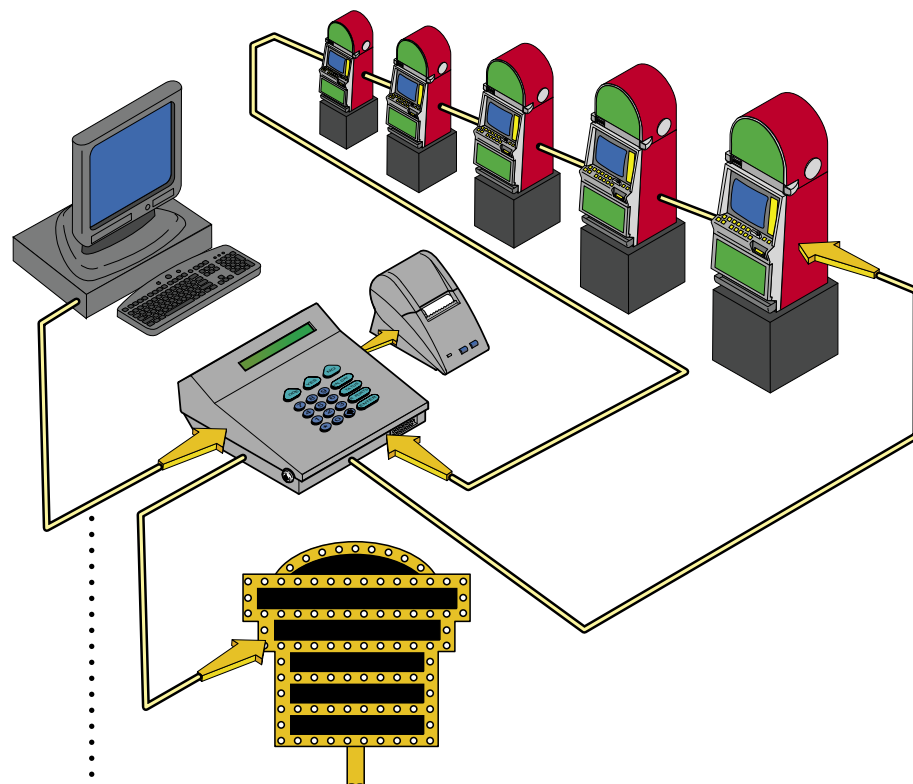
- The **Touchscreen LCD** gives spinning reel machines, like IGT's *Reel Touch*™ machines, the ability to offer interactive second-screen bonus games.



- First- and second-generation microprocessor technology stores game information on a series of chips or other media located on the processor board. Third-generation microprocessor technology, such as IGT's *Advanced Video Platform (AVP)*® machine, offers the ability to download game information from a CD or DVD directly to the hard drive. This feature allows for quick game conversion.



- **Reel Touch™ Bingo Terminals** are technologic aids to the playing of bingo. These bingo terminals are linked to a Central Determination System (CDS) and feature a display representing the outcome of each bingo game in an entertaining fashion.



- **Linked Local Progressive Systems,** such as the IGT Progressive Controller, link several gaming machines in a single location and provide the ability to offer multi-denomination progressive games. Players gaming at linked local progressive machines have the opportunity to win a progressive jackpot based on the denomination they choose to play.

The most recent development in computer-assisted casino management tools – server-based gaming – adds the ability to download games and payable information directly to individual machines, as well as

coordinating player tracking information and bonus-ing elements.* This key feature allows operators to customize their casino floors to suit current market needs much quicker than in the past. The future of server-based gaming will see traditional machine glass replaced by LCD screens, making the entire game conversion process possible in seconds.

All of these changes have made gaming machines an overwhelming favorite in casinos today because they give both the player and the operator the maximum variety and flexibility in each gaming machine.

*Where approved.

Casino Management Software

The same progression that saw gaming machines transition from mechanical machines to powerful computer-based devices has also occurred in the area of casino floor and site management. A central computer system with communication links to machines on the casino floor makes it possible to obtain data on slot performance and to track player participation with gaming machines as well as table games.

Casino management systems offer operators the ability to make sound business decisions based on

measurable facts rather than intuition or speculation. With improved accuracy and speed for functions ranging from accounting to communication and reporting, operators are also finding that working within a network offers a secure environment that is – by its very nature – also efficient and profitable. For more detailed information on casino management tools, refer to the Gaming Systems section of this guide.



Why People Participate in Gaming

Industry research shows the primary attraction for people visiting casinos or other gaming locales is the entertainment experience. Gaming sites offer visitors a chance to have a fun night out in a different social atmosphere.

The reasons people come to a gaming site vary, but all of them have important implications for gaming site/hotel operators.

- **To enjoy gaming:** The activity of playing the games is certainly a predominant reason for going to a casino. Many people enjoy the experience of gaming itself, regardless of whether they win or lose.
- **For business-related trips:** Gaming may be incidental for those who are on-site for conventions, trade shows, or other business-related activities.



- **To vacation:** Some tourists may participate in gaming a bit, but are predominantly interested in a mix of diversions involving casino entertainment, shopping, sightseeing, or relaxing by the pool.
- **To win:** Virtually every player would like to win. Most people who take part in gaming hope for at least some monetary gain.
- **For excitement:** While most visitors view the act of gaming as exciting, the gaming environment itself is also highly stimulating. The sights and sounds, the presence of money, the crowds and activity level, exotic and novel casino themes, and the multiple attractions of lavish mega-resorts all contribute to a player's excitement.



- **To relax:** Paradoxically, an exciting gaming site can also be a source of relaxation to the visitor. A casino hotel, for instance, is a vacation destination that can offer relief from the stresses of everyday life. Guests are pampered, and they enjoy taking time away from their daily routines.
- **For attention or personal recognition:** The customer-service orientation of gaming locations creates an environment in which even infrequent players may appreciate recognition from a floor host or front desk clerk. Recognition can take many forms, such as complimentary meals and showroom passes, a smile and a kind word, or a mailed invitation to a special event. The power of this motivation is often not the monetary value received, but the sense of being special and valued.
- **For social interaction:** Casinos are great places to meet new friends or people watch. The fun atmosphere encourages people to converse easily and to be friendly. For some customer segments, like the elderly, a casino's social aspects may be especially attractive.
- **For challenges and risk-taking:** For some players, winning is satisfying because they have beaten the odds, played smart and well, or prevailed against that imposing institution, "the house." Gaming is a physically safe form of risk-taking that some players enjoy.

- **For incentives:** Some players are attracted by discounts, prize drawings, or special bargains. From contests and fun books to discounts, incentives have a role in attracting customers.

Understanding the needs and motivations of customers in the gaming/hotel industry, coupled with a well-rounded knowledge of the gaming experience, can spell great opportunity for gaming/hotel properties and communities alike.

Information of this type provides a gaming/hotel property with tools to create solid marketing and advertising campaigns, in-house promotions, and other programs that promote superior customer attraction, strong differentiation from competitors, a loyal customer base, and a profitable operation.

For communities considering gaming, economic development and job growth are powerful incentives. With suitable regulatory structures in place, gaming as an industry can be tailored to provide valuable economic diversity for a wide range of business environments.

Machines



The terms “machine” and “game” are often used interchangeably throughout the gaming industry. However, for the purpose of this guide:

- The term **Machine** refers to the hardware. Most machines are composed of a base cabinet and a top box. Operational hardware components, including the microprocessor, power supply, coin hopper, ticket printer,

and bill acceptor, are located in the base cabinet. Hardware to support bonus functions, such as wheels, bonus reels, LCDs, etc., are located in the machine’s top box.

Today’s gaming machines are available in a wide range of styles, including upright and slant-top models with a variety of top box sizes and options, and bar top models.

Spinning Reels
Upright



Video Reel
Touch™ Upright



Video Slant Top



Video Upright



A machine may also be referred to as a “device” or “terminal” in some jurisdictions.

- The term **Game** refers to the theme displayed on a machine. Games are controlled by game-specific firmware that is responsible for the appearance and behavior of the game. IGT has a library of hundreds of game programs, including many of the industry’s most popular titles.



Theme- or game-specific hardware components associated with a particular game may include glass, reel strips, laminates, toppers, etc. For more detailed information on games, refer to the Game Play and Bonuses section of this guide.

Machine Types

Game play is accomplished with two machine types:

- **Spinning Reel Machines** feature actual physical reels that activate



for game play when the “Spin Reels” button is pressed or with each pull of the slot handle. This traditional slot machine usually includes three, four, or five spinning reels, and may include an LCD located in the top box for second-screen bonus games.

While it may share a similar look with its mechanically driven ancestor, this modern-day classic boasts a variety of hardware and software advancements that provide both operational efficiencies for the casino operator and a heightened user-friendly experience for players.

A typical game conversion in a spinning reel machine is usually only a matter of changing the glass, reel strips and game program.

- **Video Machines** feature game play displayed on a Cathode Ray Tube (CRT) or Liquid Crystal Display (LCD) video monitor. The most popular video games include video poker and video reel games (also known as video slots).



Video machines offer the ability to display basic game play and any number of second-screen bonus games with no additional hardware required. Changing the game theme in a standard video machine is usually accomplished by simply exchanging the glass and game program.

A gaming operation's slot and video game mix can be kept up-to-date to accommodate changing business needs and player preferences with relative ease.

Machine Components

Today's gaming machines embody the latest developments in microprocessor technology. These machines are professionally engineered to provide a high level of reliability, flexibility, security, ease of installation, game conversion, and maintenance.

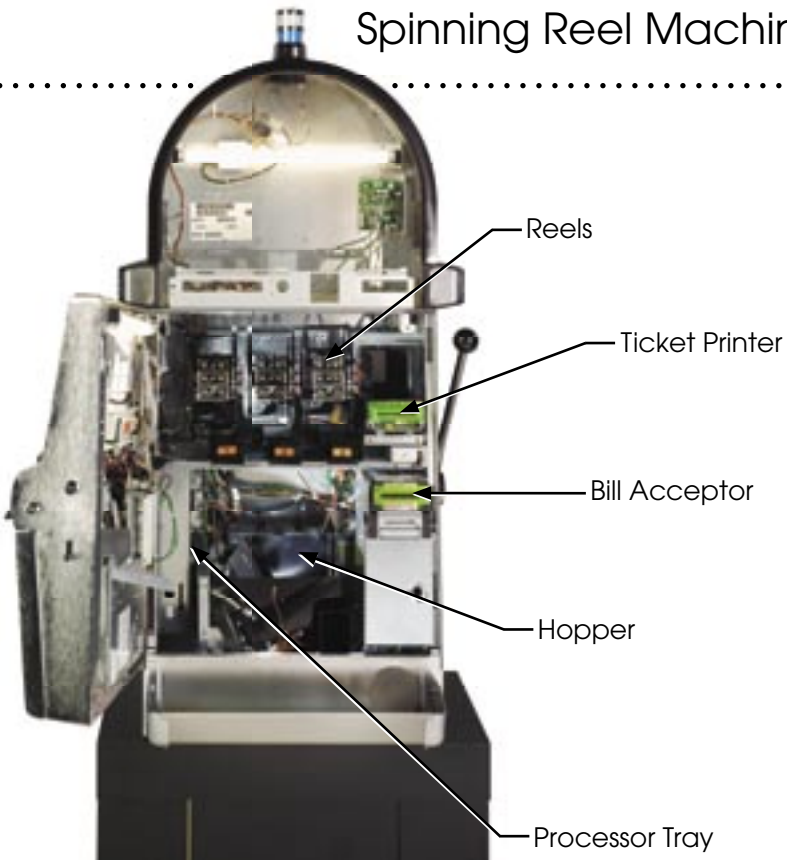
The hardware components installed in a gaming machine accomplish various functions. While some components facilitate standard machine operations and security, others make game play and player tracking possible, and still others are installed to fill the needs of a specific customer and/or to meet jurisdictional requirements.

Processor

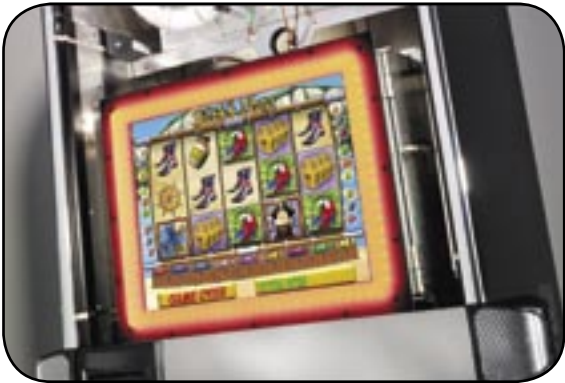
The "brains" of the gaming machine reside within the processor board – a microcomputer. All game functions – such as coin acceptance (coin-in), coin dispensing (coin-out), game statistical data accumulation and accounting, player panel switches, and indicators – are controlled by the processor as are all features of game play, including random reel spin/stop sequence, video graphic displays, and audio effects.

Other tasks performed by the processor board include the constant monitoring of all machine functions and detection of failures or errors, as well as monitoring of all security aspects. All critical game data is stored in a random access memory (RAM), which is backed up by a long-life battery so that data is not lost in the event of a power loss.

Spinning Reel Machine Features



S2000™ Upright Machine



Touchscreen LCD with illuminated Bezel – Reel Touch™ Machines



Reels



Seven-Segment LED Display

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