INTRODUCTION TO SLOTS AND VIDEO GAMING
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.

- **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.

- **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.

- **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 paytable information directly to individual machines, as well as coordinating player tracking information and bonusing 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.
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.

### 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.

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.

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

- Touchscreen LCD with illuminated Bezel - Reel Touch™ Machines
- Seven-Segment LED Display
- Reels
- Ticket Printer
- Bill Acceptor
- Hopper
- Processor Tray
- S2000™ Upright Machine
Video Machine Features

Ticket Printer
Player Tracking
Video Touchscreen
Bill Acceptor
Processor Tray
Hopper

Game King®
Upright Machine

Touchscreen LCD with Illuminated Bezel – Video Reel Touch™ Machines

Flat-screen LCD Monitor
AC Power Distribution and DC Power Supply

These subsystems take line current and provide the necessary internal voltages to support the machine. AC line current is converted to low-voltage, computer-grade DC current (up to 25 volts) by the DC power supply. The AC Power Distribution module provides power conditioning and surge protection. Low-voltage DC power is a significant safety feature and a requirement in some jurisdictions.

Player Inputs

The player sends input to the machine via buttons (also called “switches” in the industry) located on the front panel (also called the player panel). In addition, some machines are fitted with a traditional slot handle located on the right side of the gaming machine. The handle simulates the feel of the handle pull on a mechanical slot machine. But in fact, it activates a microswitch.

Player panel switches illuminate when coins are inserted or credits are won. Small lamps integrated into the player switches light up, indicating the function of the switch is enabled. For example, the “Spin” switch illuminates after a coin is inserted, prompting the player to push it. For security reasons, neither the player panel switches nor the handle can be fully activated when the game is in an idle state and no coins have been inserted and no credits are on the credit meter.

The functions of player panel switches are based on the configuration of the gaming machine and the needs of the game. Typical functions a player might find on a machine are:

- Bet 1 Coin
- Bet Maximum Coins
- Spin Reels
- Collect Winnings
- Hold (Poker)
- Deal/Draw (Poker)
- Call Attendant or Service
- Daub (Bingo)
Player Information Displays

Player information displays provide visual indications as to the status of the game. The primary indicators on a machine include the following:

- The **Seven-Segment Display** on a spinning reel machine shows the number of coins/credits bet, number of coins/credits won and – on credit play machines – the number of credits accumulated. This type of information is displayed on the video monitor of a video machine.

- The **Vacuum Fluorescent Display (VFD)** provided on some spinning reel machine models displays text-based game-play instructions and other feedback to the player, including the number of bonus credits won. The VFD is also used to indicate machine malfunction codes, as well as statistical data and accounting information. Players of video machines view this information via the video monitor.

- **Paytable Displays** for spinning reel machines are traditionally located on the machine glass. Paytable information for video machines is found by pressing the “See Pays” button.

- **Line Lights** are used on spinning reel and video machines with multiple paylines. The line lights are located behind the reel glass on spinning reel machines and may be LEDs or incandescent lamps. Line lights in video machines are a function of the video display. As a coin is inserted in either type of machine, the appropriate line light is illuminated, signifying that the coin/credit has been accepted and any wins on that line will be paid to the player.

- **The Liquid Crystal Display (LCD)** is located in the top box of some spinning reel machines. Functioning much like the monitor in a video machine, the LCD displays bonus game play, help screens, paytable or “See Pays” information, and machine malfunction codes. In addition, some LCD screens have touchscreen capabilities.
Coin-In Handling

Coin-in handling allows for the insertion of coins or tokens into the machine, identification of valid coins, rejection of invalid coins, and the generation of an electrical signal to the microprocessor indicating that a valid coin has entered the machine. The most popular coin-in systems use a coin acceptor with switches set for acceptance of specific denominations and sizes of coin. Coins are routed to the hopper after being deemed valid. If the hopper becomes too full, coins pass through a diverter into a “drop” bucket in the machine stand for collection by the gaming operator at a later time.

Alternative coin-in systems use a coin comparitor that uses principles similar to that of a metal detector. The magnetic properties of incoming coins are compared to the properties of a reference coin that resides in the comparitor. Coins that compare favorably are allowed to enter the machine. Coins that do not compare favorably are returned to the player.

There are two types of multi-coin acceptors.

- In gaming environments, the acceptor is pre-programmed to accept a number of coin denominations; however, only one coin/token denomination can be activated for acceptance at any given time.
- In some lottery environments, multi-coin acceptors are programmed to accept two to three different coin denominations. Any of the pre-programmed coin denominations may be inserted into the machine and the machine credits accordingly.

For more detailed information on lottery environments, refer to the Government-Operated Gaming section of this guide.

Bill Acceptor

Bill acceptors eliminate the necessity of inserting individual coins/tokens into the machine to play the game. Players insert a bill or (in the case of ticket-in, ticket-out technology) a ticket into the acceptor.
Hopper

The coin-out system consists of the coin hopper and its associated control and monitoring circuitry. The coin-out system is responsible for paying out the number of coins owed the player. Coins are paid out in one of two ways.

- **Non-Credit** machines pay coins immediately after each win in the coin denomination the machine is configured to accept.
- **Credit** machines accrue winning amounts on the credit meter and the player receives the payout after pressing the Cashout button.

The hopper dispenses coins in single file order through the machine’s coin exit chute. The hopper counts the number of coins that are dispensed, and stops dispensing coins when it reaches the payout amount.

The hopper communicates to the gaming machine when the hopper is empty. Casino personnel fill the empty hopper and return it to active operation. An additional feature of the coin-out system is the detection of unauthorized or excess coins paid out. If extra coins are detected, the processor disables the machine and places it in an out-of-order mode. Hoppers are produced in a variety of single denominations. All IGT machines may be fitted with a coin hopper. Options within the firmware allow operators to choose the number of coins dispensed before the machine defaults to a hand pay situation. Machines with ticket-in, ticket-out technology can be set by the operator to include both coin pays from the hopper and ticket pays. Certain government-operated gaming jurisdictions require that the machine rely strictly on tickets for cashouts.

For bills, the acceptor determines the bill amount and validity, and communicates the amount to the processor, which adds credits to the credit meter in the denomination of game play. For example, a $20 bill inserted into the bill acceptor of a quarter-denomination game would add 80 credits. For tickets, the bill acceptor scans the bar code on the ticket and transmits the validation number to the ticket system. A central system determines if the ticket is valid and credits the amount associated with the ticket to the game.

Software and switches within the bill acceptor determine the denomination of bills accepted. Bills and tickets that are accepted by the bill acceptor are stored in the bill acceptor cash box for removal by gaming operations personnel.

Typical bill acceptor features include:

- Acceptance of tickets or specified bill denominations
- Easy access for service and cash box removal
- Sensors to verify the denomination and validity of the currency
- Communication between the bill acceptor and the machine to ensure that credits are accrued for valid bills and tickets only
- Simple procedures for maintenance, clearing bill jams, and misfeeds
- Non-acceptance of bills if the acceptor is malfunctioning
- Messages on the machine’s VFD, LCD, or video monitor to alert service personnel to units that are disabled or full
Ticket Printer

Machines that do not include a coin hopper accomplish payouts with a ticket. The ticket printer uses heat to transfer the ticket image onto heat-sensitive paper. The ticket includes the following information:

- The **Cash-Out Amount** is printed on the ticket with both a bar code and numeric amount.
- The **Validation Number** is used for tracking purposes by preventing the player from cashing the same ticket more than once.
- The **Gaming Venue** refers to the property where the ticket was printed, i.e., Fiesta Casino, Las Vegas.
- The **Machine ID Number** identifies the specific machine where the ticket is printed.
- The **Print Date and Time** notes the exact date and time the ticket was printed.

Tickets are usually valid for a specified period of time, and that time period is printed on the ticket. Ticket paper can be printed with the venue’s logo or other information identifying the location where the ticket was printed.

Machine Features

Game Accounting

IGT gaming machines employ two separate accounting methods for counting coins inserted into the machine’s coin head, paid out by the machine, and diverted to the coin collection or “drop” area of the machine stand.

- Electromechanical counters, with no means for resetting, are located inside the machine. These counters are referred to as “hard meters” in the gaming industry.
- Random access memory (RAM) stores the number/amount of coins inserted in the machine, paid out by the machine, diverted to the drop area, and a host of other statistical information. This data is retained by means of a long-life battery backup even when there is no source of outside power to the machine. These meters are known in the gaming industry as “soft meters.”

The soft meters are displayed on the monitor of all video gaming machines, and are shown as numeric values on the VFD on spinning reel machines. Inserting and rotating a key in a switch on the side of the machine triggers access to menu options in order to access accounting information.
Security

From quality cabinet materials to advanced electronic safeguards, reputable machine vendors emphasize safety for technicians and players, and security of internal operations in the development and manufacture of every component in the machine. Enhanced security features on IGT machines include:

- All-metal cabinet liner (enclosure)
- Door-open sensors
- Secured processor board behind a lockable metal panel
- Silicon signature chips imbedded in the logic card/processor board
- Lithium battery on the processor board to maintain game data for a maximum of two years if electrical power to the machine is terminated
- Voltage-sensing circuit to verify battery voltage is adequate to maintain game statistic memory
- Comprehensive coin-in optics system defends against stringing coins (coins attached to string which are re-used to gain free play)
- Numerous software features to detect accidental or deliberate data corruption, errors, malfunctions and possible security encroachments
- Multiple levels of protected access for software diagnostics, set-up, and operator functions
- Expanded telltale power-off detection features for the most sophisticated and secure detection of main and optional door access – even when machine power is terminated
- Failure-detection circuitry to constantly monitor machine operation and verify that all circuits function properly
- Watchdog circuit to continually interface with the microprocessor to ensure constant and accurate data processing
- On spinning reel games, position sensing at each reel stop for detection of deliberate attempts to reposition reels, and automatic reel re-spin to last valid game outcome with power up to prevent reel manipulation during power down situations

Diagnostics

Quality gaming products have comprehensive fault-detection capabilities. These systems are based upon effective input signals communicated to the microprocessor and/or proper output action being taken by the microprocessor.

Diagnostic tests provide the service technician with the ability to activate selected inputs and verify that the inputs are recognized by the microprocessor, and to activate selected outputs.
to verify that they function properly. The machine immediately displays information – on the VFD, LCD or the video monitor – that aids the technician with problem diagnosis.

In addition to diagnostics at the machine, a complete set of technical documentation for each type of machine manufactured by IGT is available from IGT Customer Service or on IGT’s technical web site at support.IGT.com. This password-protected area offers access to IGT customers 24 hours a day with technical information such as Customer Notifications (CNs), parts lists, electronic diagrams, a game library, game conversion checklists, par sheets, Program Summary Reports (PSR), a technicians’ chat forum, newsletters, and much more.

Token Acceptance

A token is a stamped metal blank bearing a gaming property’s identification and a value ascribed to it. Tokens vary in size and metal content based on regulations, gaming property preference, and budget.

A token’s primary use in gaming is as a substitute for local paper currency and coinage. Tokens are often implemented when:

- The use of legal tender is prohibited
- Specific denominations (such as dollar coins) are in limited supply or non-existent ($5, $25, $100, $500, or $1,000 coins)
- Gaming locations – such as international sites – attract visitors from a variety of countries
- Marketing promotions are implemented

In addition, properties may opt to accept tokens at their table games as well as their gaming machines. Players also take tokens home for souvenirs. Known in the industry as the “walk factor,” this phenomenon results in profit for the gaming property – as tokens typically cost significantly less to produce than their face value.
Operator-Selectable Options

A number of options in a gaming machine’s hardware and software are based on operator preference and jurisdictional guidelines or laws. A myriad of choices allow operators to customize machine options to meet their needs and the needs of their players. Options may include such things as paytables and payback percentages, game denomination, hopper limits, maximum bet, sound options, bill acceptance, and much more. Complete information on specific operator-selectable options for each game is included in the Program Summary Report (PSR).

Progressives

Progressive machines are those in which the top jackpot award for the best winning hand or symbol combination is not a fixed amount. In most cases, a percentage of the value of each coin played is added to the top jackpot, which continues to accrue until a player hits the top award.

The progressive display represents the amount awarded when the top jackpot is hit with a specified number of coins bet – usually the maximum number. A player who wins the top award receives the amount shown on the display progressing on the machine at the time the jackpot is hit. The top award automatically resets to an established base amount when the trigger combination is hit and the progressive jackpot win is verified.
The three most common types of progressive machines available are the following:

- **Wide-Area Progressive (WAP)** machines, such as IGT’s *MegaJackpots®* games, are linked to a central system via telecommunication lines. It is possible for any player to win the top award on any one of the linked machines. Linked machines in systems of this type are usually limited to single states.

  Casino operators share in the profits garnered by the machines located on their property; however, the jackpot liability is solely assumed by the machine/system provider. The top award may be paid in annual installments, a single discounted lump sum, or in the case of IGT’s *MegaJackpots Instant Winners™* jackpots, paid in full upon verification of win.

- **Local-Area Network (LAN)** progressive machines, such as those linked to an IGT Progressive Controller, work much like wide-area progressives but on a smaller scale. Local-area networks feature a limited number of machines linked in a single location, and the top award is the responsibility of the casino operator.

- **Stand-Alone Progressive** machines each manage their own progressive jackpot, and are not linked to any other machine for the purpose of pooling the progressive jackpot. The top award liability on stand-alone progressive machines lies with the casino operator.

In each type of progressive machine, the jackpot increases a specific percentage point with each coin played. The rate of growth is called the “progressive percentage” and normally ranges from .5 to 3% (minimum and maximum guidelines may be established in jurisdiction by gaming law).
Progressive jackpot games have a lower payout percentage to compensate for the progressive contribution. A game that would normally have a 93% payout may be reduced to 89%, with the 4% progressive payout returning the effective payout to 93%.

If the addition of progressive capability simply returns a gaming machine to its original payout percentage, why should a gaming site offer machines with progressive jackpots?

- The possibility of hitting a multi-million-dollar jackpot creates player excitement and increases total play or “handle.”
- The more people play the progressive machines on a linked system, the faster the jackpot grows. Patrons are attracted by the ever-increasing jackpot amount.

- Large progressive jackpots offer awards similar in size to large state and multi-state lotteries while offering additional entertainment value in the form of player interaction with the game and the entire casino experience.
- IGT’s MegaJackpots Instant Winners™ jackpots award smaller jackpots, starting at $25,000 to $150,000, and are paid in full upon verification of win.

The gaming industry recognizes that the majority of today’s players aren’t satisfied with simply pulling a slot handle and waiting for a possible payout. Gaming machines now offer more choices for the operator and the player than ever before. In addition to attractive and reliable machines, developing new games to satisfy player demand is a driving force. For more detailed information on games, refer to the Game Play and Bonuses section of this guide.
Game Play and Bonuses
Game themes run the gamut from classic favorites, such as IGT’s *Double Diamond*® Slots, to the hottest new trends. Whether players prefer traditional-style spinning reels, video reel slots, or video poker, the gaming public seeks variety and a challenge.

**Spinning Reel Games**

A certain segment of every property’s players love the traditional spinning reel games. The majority of these games manufactured today feature either three or five reels. Each reel basket holds a “reel strip” – made from a material similar to camera film – with reel symbols. The reels spin and come to a stop after a player pulls the handle or pushes a “Spin Reels” button. If the symbols land in a valid winning combination, the player receives a payout (coins or credits) based on the game’s paytable and the wager amount. Spinning reel games may have one or more paylines, and the game awards payouts for winning symbol combinations on each payline.

Innovations that lend more variety to spinning reel games include:

- A **Bonus Reel** configured to provide bonus payouts and multipliers, or trigger special functions on the main reels of the game or the fourth physical reel

- A **Liquid Crystal Display (LCD)** in the top box, offering animated video bonus games to the standard spinning reel games

- **Special Hardware** to facilitate bonus game play for specific games (refer to the “Top Box Bonus Features” section on page 33.)
Video Reel Games

Video reel games provide players with a multi-sensory gaming experience. Colorful computer animation and stereo sounds combine with exciting game play to create a totally entertaining package. These games feature multi-reel, multi-payline action, and captivating bonus games that equal more ways to win.

Game play on a video reel machine is displayed via the video monitor. The majority of video reel games feature either three or five reels. Each reel is a computer-generated image with a pre-defined set of reel symbols and virtual reel stops. Video reel games can have as many as 20 paylines or more. Players push a button to activate the reels. If the symbols land in a winning combination on any played line, the player receives a payout based on the game’s paytable and the wager amount per payline.

Many video reel games highlight winning symbol combinations with colored boxes and bright lines. Players can view the valid symbol combinations and their associated payouts by pressing the Help/See Pays button.

The innovative, new MultiWay™ wagering concept allows players to buy reel positions rather than paylines. A standard “3 X 5” video game offers 243 possible ways to win. Players may choose to bet on some or all of the possible ways. In addition, the total number of ways may be wagered on multiple times per game play. Winning combinations consist of all matching symbols on adjacent reels beginning with the furthest left reel and reading to the right. With the large number of possible ways to win, MultiWay™ game themes have high appeal for players who prefer penny-denomination games.
Video Poker

The tremendous popularity of video poker games is undeniable. Beginning with the earliest versions of Draw Poker™ introduced in the 1970s, video poker offerings have exploded.

Video poker games use on-screen graphics depicting playing cards and on-screen buttons to prompt players during game play. In a typical single-hand video poker game, the game displays a set of card backs, indicating to the player that the hand is ready for play. The player touches the Deal button and the game deals the initial poker hand. Just like the table game, the player selects the cards to hold and touches the draw button to replace the unwanted cards. If the resulting hand contains a winning card combination, the player wins an amount based on the game’s paytable and the initial wager.

Technology advancements in recent years have allowed the video poker machine’s functionality to greatly expand. Games now feature multiple-hand game play, from 3 to 100 hands, which are played simultaneously. These multi-hand poker games are now top revenue producers in gaming venues everywhere.

The basic multi-hand poker games are played in the same manner as single-hand games, with some minor variations. Players select the number of hands and the type of poker game to play by touching icons on the screen. The game displays a set of card backs for each hand the player has elected to play. Pressing the Draw button initiates game play and five cards are dealt for the first hand. When the player selects the cards to hold, the game holds them in all of the hands on the screen. The game then draws cards into all of the hands, with each hand receiving cards from its own 52-card deck.
Multi-Games

Multi-game suites for video machines make it possible to offer a variety of games on a single machine, each with its own paytable. Players access the game of their choice from an on-screen menu. Most multi-game machines feature video reel and poker games, along with keno and blackjack.

Blackjack

Basic blackjack video games play much like a live single-deck game in an average casino. The exception is that each hand dealt on the video game begins with a new 52-card deck. Pressing the Deal button initiates the game. Two cards are dealt face up to the player and two cards are dealt to the dealer – one card face up and one card face down. The player’s goal is to beat the value of the dealer’s hand without exceeding a total value of 21. Aces count as either a 1 or an 11, and face cards have a value of 10. All other cards count at their face value.

The game ends if the first two cards dealt to either the player or the dealer total 21. Otherwise, the player adds cards to the hand by touching the Hit button. The player elects to stop taking cards by touching the Stand button. The game transitions to the dealer’s hand by revealing the face-down card.

The game deals cards to the dealer’s hand until the value of the hand is 17 or higher. Credits are awarded to the player if the value of the player’s hand is greater than the value of the dealer’s hand, or if the value of the dealer’s hand exceeds 21.
Keno

Keno games play much like the casino staple. The basic game presents the player with a keno card of 80 numbers. The player selects from 2 to 10 numbers by touching the numbers on the screen. The numbers picked by the player are clearly displayed on the keno card throughout the game.

The game then randomly generates 20 numbers between 1 and 80 (inclusive), which display on the 80-number card. The player is awarded a payout based on the number of matches and the initial wager. Many keno games feature multi-card play for even more excitement.

An additional feature available to the player is “Quik Pick.” Players choosing this feature allow the keno game to randomly select numbers to start game play.

Bonus Games
Second-Screen Bonuses

Second-screen bonus games revolutionized the popularity of video reel games by offering players the chance to make decisions involving the outcome of the bonus game. These popular interactive additions to standard game play were pioneered in video reel games and later added to spinning reel games via an LCD in the top box.

A second-screen bonus is usually triggered when a specific symbol, or combination of symbols, lands on a played line. In some instances, the game may also require the player to
wager a specific amount in order to access the bonus. The bonus game is played on the monitor or LCD, and features special animation sequences and sound. In some games, special hardware (such as a wheel or lights) is incorporated as part of the bonus game play. Credits are awarded based on the outcome of the bonus.

These second-screen features provide a high level of excitement based on player interaction with the game and the added anticipation of a bigger win. Second-screen bonus games are so popular that they’re now often found in video poker games.

Top Box Bonus Features

Some gaming machines (spinning reel or video slot machines) feature elaborate top-box based bonuses that coordinate with the game. Just like the second-screen bonus games, these bonus games are triggered when a specific symbol or combination of symbols lands on the reels. In some instances, the game also requires that the player wager a specific amount in order to access the bonus.
The game provides audio instructions to the player via the stereo sound system, and visual cues are viewed via the existing machine displays, such as the VFD, LCD, or video monitor. For most of these games, the player presses a button on the player panel or screen to initiate bonus game play. Specially designed hardware located in the top box (such as reels, wheels, lights, or merchandising dispensers) is the centerpiece of the bonus game action. Coordinating stereo sounds also accompany game play. Video reel games also provide the added benefit of on-screen animation in tandem with the top box action.

The player wins credits based on the outcome of the bonus game. In some instances the game multiplies the win by the initiating wager per payline.

Machines with intricate top box designs are swiftly becoming gaming mainstays. The interactive features make them fun to play, and they attract attention whether they are being played or idle. What’s more, these games are often based on highly recognizable licensed properties, such as TV shows, movies or other well-known popular culture icons. The combination of the highly visible machine hardware and an easily identifiable game theme makes these games a big hit with players.
Slot Math

2 x 2 x 2 x 2 x 2 x 2 = 16 jackpot

Reel cycle / hits per cycle = 16,771

31,452 symbol combinations
A gaming operator’s knowledge of game performance is a vital part of maximizing revenue on the gaming floor. Many information collection and analysis tools are available to help survey operating results and increase revenues, but using them may require a basic understanding of the economics of gaming machine yields, holds, payback, returns, and other game characteristics.

One such tool, par sheets, can be complicated to understand. However, investing the time learning to read them is time well spent. They offer important information for optimizing the revenue for each machine, as well as offering data for technicians.

In this section, we provide examples of simple slot math that is found on par sheets for three types of games – spinning reel and video reel slots, video poker, and bonus games. These equations represent the most basic operations only. For more detailed information, please ask a gaming representative or attend training classes. Par sheets for all IGT games (with the exception of MegaJackpots® games) are available online at support.IGT.com.

Spinning Reel and Video Reel Slots

In the following spinning reel and video reel examples, we refer to the following terms:

- **Stops**: Reel positions or the positions at which a reel stops.
- **Reel Cycle**: Total number of possible combinations, calculated by multiplying the total number of stops of all the reel positions. For example, on a three-reel game the reel cycle equals Reel 1 positions x Reel 2 positions x Reel 3 positions.
- **Hits Per Cycle**: Number of times a certain jackpot combination theoretically lines up during one reel cycle.
- **Jackpot Odds**: Theoretical likelihood of hitting a certain jackpot on any given handle pull.
- **Hit Frequency**: Theoretical percentage of plays involving a pay. The number of combinations that can trigger a payout divided by the reel cycle.
- **Pulls/Hit**: Theoretical number of plays between pays. Number of combinations per cycle divided by the number of combinations that can trigger a payout is the Pulls/Hit.
| Game Example | • Spinning Reel  
| • 3-reel, 32-stop, single payline  
| • 3,277 symbol combinations that trigger a payout  |
| Reel Cycle | $32 \times 32 \times 32 = 32,768$ |
| Top Award Trigger | Three 7s line up on the payline, number of 7s per reel:  
| • Reel 1 = 2  
| • Reel 2 = 2  
| • Reel 3 = 1  |
| Odds of Hitting the Top Jackpot | The # of jackpot combinations = Reel 1 # of winning symbols x Reel 2 # of winning symbols x Reel 3 # of winning symbols  
|  
|  
| 2 \times 2 \times 1 = 4 \text{ hits/cycle}  
| Reel cycle / hits per cycle = 32,768 / 4 = 8,192:1  
| The jackpot should hit every 8,192 reel spins  |
| Hit Frequency | $\frac{3,277}{32,768} = 10\% \text{ hit frequency}  
| Pulls/Hit | $\frac{32,768}{3,277} = 10 \text{ games between pays}$ |
| Game Example | • Spinning Reel  
| • 4-reel, 64-stop, single payline  
| • 2,516,582 symbol combinations that trigger a payout  |
| Reel Cycle | $64 \times 64 \times 64 \times 64 = 16,777,216$ |
| Top Award Trigger | Three Bars line up on the payline, number of Bars per reel:  
| • Reel 1 = 2  
| • Reel 2 = 2  
| • Reel 3 = 2  |
| Odds of Hitting the Top Jackpot | The # of jackpot combinations = Reel 1 # of winning symbols x Reel 2 # of winning symbols x Reel 3 # of winning symbols x Reel 4 # of winning symbols  
|  
|  
|  
| $2 \times 2 \times 2 \times 2 = 16 \text{ jackpot combinations or hits/cycle}  
| Reel cycle / hits per cycle = 16,777,216 / 16 = 1,048,576:1  
| The jackpot should hit every 1,048,576 reel spins  |
| Hit Frequency | $\frac{2,516,582}{16,777,216} = 15\% \text{ hit frequency}  
| Pulls/Hit | $\frac{16,777,216}{2,516,582} = 6.67 \text{ games between pays}$ |
| Game Example | • Video Slot  
| • 5-reel, 15-line  
| • 3,931,452 symbol combinations trigger a payout  
| • The game has one second-screen bonus that affects the hit frequency by +0.593%  
| Number of symbols per reel:  
| • Reel 1 = 45  
| • Reel 2 = 35  
| • Reel 3 = 35  
| • Reel 4 = 25  
| • Reel 5 = 45  |
| Reel Cycle | $45 \times 35 \times 35 \times 25 \times 45 = 62,015,625$ |
| Top Award Trigger | Five “top award” symbols line up on a payline, number of “top award” symbols per reel:  
| • Reel 1 = 1  
| • Reel 2 = 1  
| • Reel 3 = 2  
| • Reel 4 = 1  
| • Reel 5 = 2  |
| Odds of Hitting the Top Jackpot | The # of jackpot combinations = Reel 1 # of winning symbols x Reel 2 # of winning symbols x Reel 3 # of winning symbols x Reel 4 # of winning symbols x Reel 5 # of winning symbols  
|  
|  
|  
|  
| $(1 \times 1 \times 2 \times 1 \times 2) = 4 \text{ jackpot combinations or hits/cycle}  
| Reel cycle / hits per cycle = 62,015,625 / 4 = 15,503,906  
| The jackpot should theoretically hit every 15,503,906 reel spins  |
| Hit Frequency | $\frac{3,931,452}{62,015,625} + 0.593\% = 6.932\% \text{ hit frequency}  
| Pulls/Hit | $\frac{1}{6.932\%} = 14.425 \text{ games between pays}$ |
Video Poker

The video poker par sheet differs from a spinning reel or video reel par sheet in two important ways:

- The video poker par sheet lists probabilities and odds for different hand combinations. The number of combinations in the standard video poker game is static, since the game must be played with a 52-card deck. The only way to alter the economics of the game is to change the value assigned to various winning combinations by changing the paytables.

- The percentage is expressed as a range of player returns. Poker performance is expressed as a range because the game odds assigned to winning combinations actually account for player skill. Poker differs from slot games in that the outcome involves player choices and skill, and players get better at playing the same game over time. The video poker par sheet essentially offers three levels of player returns.
  
  - **Optimum return** is achieved when the player plays the game most efficiently, or “computer perfect.”
  
  - **High expected field return** is the upper limit of a range of performance expected when experienced players are actually playing the game. This represents the highest average performance expected in real-life on-site play.
  
  - **Low expected field return** represents the type of performance anticipated for inexperienced players or those encountering a new game for the first time.

Bonus Games

Most video reel and some spinning reel games have a bonus game as an integral part of the basic game software.

The par sheets for the game highlight the bonus game payouts in an auxiliary table and in combination with the base game. The bonus game par sheet shows the probability of hitting a specific bonus amount rather than a matrix of possible symbol combinations.
Sample Bonus Game – Video Reel Slots

- Three B1 symbols on a played line initiate the bonus.

- Ten steps with four quadrants each are displayed on the bonus screen. Selecting one of the quadrants reveals a pay value or one of the following items: a key, shield, multiplier, dragon, or spell book. A selected pay value is added to the bonus meter. The key opens the treasure chest when the final step has been completed.

- The revealed pay value of the chest is added to the bonus meter.

- The shield prevents the bonus from ending when a first dragon has been selected and awards a second selection on the step with the dragon. A shield can only be used once.

- The multiplier multiplies and awards the pay values of the other three quadrants of the step. The dragon ends the bonus when no shield is available. The spell book awards all of the pay values on the following step excluding the dragon.

- The bonus ends and the total on the bonus meter is awarded when a dragon has been selected and no shield is available, or when the final step has been completed.

- All wins are multiplied by the initiating line bet.

For each step all values are placed.

<table>
<thead>
<tr>
<th>Quadrant</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 0</td>
<td>Key = Chest</td>
<td>10</td>
<td>15</td>
<td>20</td>
</tr>
<tr>
<td>Step 0</td>
<td>Shield</td>
<td>10</td>
<td>20</td>
<td>25030</td>
</tr>
<tr>
<td>Step 0</td>
<td>Multiplier</td>
<td>20</td>
<td>25</td>
<td>30</td>
</tr>
<tr>
<td>Step 0</td>
<td>Dragon</td>
<td>20</td>
<td>25</td>
<td>40</td>
</tr>
<tr>
<td>Step 0</td>
<td>Dragon</td>
<td>20</td>
<td>30</td>
<td>50</td>
</tr>
<tr>
<td>Step 0</td>
<td>Spell Book</td>
<td>25</td>
<td>30</td>
<td>75</td>
</tr>
<tr>
<td>Step 0</td>
<td>Dragon</td>
<td>30</td>
<td>40</td>
<td>100</td>
</tr>
<tr>
<td>Step 0</td>
<td>Dragon</td>
<td>30</td>
<td>50</td>
<td>200</td>
</tr>
<tr>
<td>Step 0</td>
<td>Dragon</td>
<td>50</td>
<td>75</td>
<td></td>
</tr>
<tr>
<td>Step 0</td>
<td>75</td>
<td>100</td>
<td>250</td>
<td>Key = Chest</td>
</tr>
</tbody>
</table>

For each quadrant a multiplier value is selected from the entire range.

<table>
<thead>
<tr>
<th>Multiplier</th>
<th>Weight</th>
<th>Range</th>
<th>Prob.</th>
<th>Cont.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0.20</td>
<td>0.40</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>1</td>
<td>0.20</td>
<td>0.60</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>2</td>
<td>0.20</td>
<td>0.80</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>3</td>
<td>0.20</td>
<td>1.00</td>
</tr>
<tr>
<td>10</td>
<td>1</td>
<td>4</td>
<td>0.20</td>
<td>2.00</td>
</tr>
<tr>
<td>Total</td>
<td>5</td>
<td>1.00</td>
<td>4.80</td>
<td></td>
</tr>
</tbody>
</table>

Average Pay: 406.240
Sample Bonus Game – Spinning Reel Slots

- The bonus is initiated by an SG symbol on the payline with max coins played.

- The SG symbol awards three bonus plays. Up to three additional bonus plays, for a total of six, may be awarded as follows. When a B1 or a BB symbol occurs on the payline with the SG symbol, one additional bonus play is awarded. When a B2 or BR symbol occurs on the payline with the SG symbol, two additional bonus plays are awarded. When a B1 or BB occurs along with a B2 or BR and the SG symbol, three additional bonus plays are awarded.

- Any CH pays occurring on the payline are paid in addition to the bonus.

- Pay amounts are added to the bonus meter as they are chosen.

- Round 1 pay amounts are chosen from the table below without duplication until “L” is chosen.

- “L” takes the player into the second round but does not add to the bonus meter and does not use a bonus play. The second round plays exactly as the first round for all remaining plays.

- When all the plays are completed, the bonus meter amount is awarded to the player and the bonus ends. The bonus can end in either the first or second round.

<table>
<thead>
<tr>
<th>Round 1</th>
<th>Round 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAY</td>
<td>STOPS</td>
</tr>
<tr>
<td>5</td>
<td>20</td>
</tr>
<tr>
<td>6</td>
<td>30</td>
</tr>
<tr>
<td>7</td>
<td>40</td>
</tr>
<tr>
<td>10</td>
<td>50</td>
</tr>
<tr>
<td>15</td>
<td>80</td>
</tr>
<tr>
<td>20</td>
<td>80</td>
</tr>
<tr>
<td>L – 0</td>
<td>100</td>
</tr>
</tbody>
</table>

Average Pays:

<table>
<thead>
<tr>
<th>Pay Combo</th>
<th>Number of Plays</th>
<th>Base Game Pay</th>
<th>Bonus Pay</th>
<th>Total Pay</th>
</tr>
</thead>
<tbody>
<tr>
<td>-- -- SG</td>
<td>3</td>
<td>0</td>
<td>61.08</td>
<td>61.08</td>
</tr>
<tr>
<td>-- CW SG</td>
<td>3</td>
<td>4</td>
<td>61.08</td>
<td>65.08</td>
</tr>
<tr>
<td>CW -- SG</td>
<td>3</td>
<td>4</td>
<td>61.08</td>
<td>65.08</td>
</tr>
<tr>
<td>CW CW SG</td>
<td>3</td>
<td>10</td>
<td>61.08</td>
<td>710.08</td>
</tr>
<tr>
<td>E1 -- SG</td>
<td>4</td>
<td>0</td>
<td>90.99</td>
<td>90.99</td>
</tr>
<tr>
<td>E1 CW SG</td>
<td>4</td>
<td>4</td>
<td>90.99</td>
<td>94.99</td>
</tr>
<tr>
<td>-- E2 SG</td>
<td>5</td>
<td>0</td>
<td>129.29</td>
<td>129.29</td>
</tr>
<tr>
<td>CW E2 SG</td>
<td>5</td>
<td>4</td>
<td>129.29</td>
<td>133.29</td>
</tr>
<tr>
<td>E1 E1 SG</td>
<td>6</td>
<td>0</td>
<td>179.89</td>
<td>179.89</td>
</tr>
</tbody>
</table>
Launching a Gaming Venue
Casino Design

Creating the optimum gaming floor plan is both an art and a science. State-of-the-art software programs allow design services professionals to produce casino floor layouts for new facilities or rework a specific area of an existing facility that isn’t reaching its full potential. Employing the services of trained professionals helps to avoid costly mistakes that may not become apparent until some length of time has passed.

From the very beginning, the design should be a collaborative project between the casino operator, the machine salesperson, and the design service professional. Characteristics of the customer base, the competitive situation in the marketplace, and marketing plans are taken into consideration. The result is the development of an ideal mix of gaming machines for a specific market and gaming site.

A complete plan should show details of each machine, including machine type, cabinet style, color schemes, and denomination. With assistance from the site’s architectural team, the design can also include locations of progressive jackpot machines, special signs, shops, interior design elements, and the location of entrances, change booths, cashiers, bars, restaurants, and restrooms.

In the case of a new facility, the final designs are then used to plan construction. They are also used to provide guidance to the architect in designing electrical requirements and wiring for machine monitoring systems, security systems, lighting, floor treatments, and more.

IGT supports its customers with its own in-house Design Services Solutions group. In addition to a hard copy blueprint, an on-screen, three-dimensional floor plan is created that can be viewed from any angle, height, or base point. This blueprint shows the entire gaming site décor, complete with any options needed such as carousels for vehicle giveaways, signage, plants and lighting. The finalized design is kept on file in the event a reconfiguration or expansion is requested in the future.
Seating

Specialized stools and chairs for patrons are an integral part of the gaming environment. Patrons who are physically and psychologically comfortable will occupy their seats for longer periods of time. This fact directly translates into increased revenue for the operation.

Gaming stools and chairs are manufactured in various sizes and styles to fit specific requirements. Their design is influenced by machine type, stand height, patron characteristics, interior decor, and coordination of frames and upholstery to the property’s design theme.

Use the following points as a guide during the seat selection process:

- Seating may be mounted to the floor plate, which is attached to the baseboard of a machine stand, or seats may be free standing.
- Seat backs and swivel bases offer greater player comfort.
- Different types of seating are appropriate for different machines, i.e., a cushy chair with a supportive back for a high-denomination machine versus a stool for a nickel denomination machine.

Whatever the choice, keep in mind two key points when considering the purchase of seating: comfort and durability.
Cabinetry, Stands and Carousels

The machine stand is the metal or wooden apparatus on which an upright-style gaming machine sits. It functions to raise the machine to a comfortable height for the player and often houses coin-overflow containers behind locked doors. Upright-style machines are bolted to the stand for safety and security during installation at a gaming property.

The IGT Cabinet Shop produces cabinets for upright and slant-top machines, stands, and custom machine carousels.

The cabinet is the framework in which a gaming machine resides. It is most often constructed of laminate-covered wood and, when installed, surrounds the metal machine enclosure. Different machine shapes and configurations require different styles of cabinetry.

For IGT machines, customers can choose from hundreds of different colors and patterns in either plastic or metallic laminates. Custom laminates include metallic-flake, printed designs appropriate to a specific game theme, mirror-like finishes, and others.

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Machine Glass and Graphics

The accelerated pace of new game development has increased the need for game differentiation. The colors, theme, and creative graphic designs of the game glass attract players to a machine by distinguishing it from neighboring machines. The use of brilliant colors and various glass treatments such as mirrored, frosted or etched glass are also used to create vivid effects.

IGT understands the importance of visual appeal in gaming machines. Eye-catching designs and attractive color combinations draw in players and revenue. We pursue the highest quality in art design and printing for gaming machine glass. The IGT Silkscreen Shop produces each piece of game glass and all reel strips used in IGT machines.
Signage

Signs or other artwork help to call attention to new games, promotions, casino players’ clubs, and other gaming venue offerings. Large signs on floor easels and indoor video screens are two items that capture players’ attention.

Danglers – small signs that are temporarily attached to the game glass – are simple additions to a gaming environment that can put the spotlight on a new game. Paddles – toppers that can be temporarily placed on top of machines – are another easy way to advertise new games or offers to customers. IGT provides danglers and paddles to help promote new games. In addition, we have created a variety of signage, danglers and paddles to educate players about ticket-in, ticket-out game play.

Customers of IGT may also establish online access to the IGT Media Center. This image repository features on-demand, customized formatting of downloadable photographs, logos, and video files to help create promotional and advertising pieces. Go to support.IGT.com/MediaCenter for more information about IGT Media Center.
In Search of the Perfect Slot Mix

In the quest to create the optimum blend of video poker, spinning reel slots, video slots and multi-game machines on a gaming floor, consider the following items:

- Denominations
- Game themes
- Variable payout percentages
- Number and types of progressives

With all of these variables, how do casino operators know when the mix of machines is ideal? Most operators agree that keeping the gaming experience fresh for their customers is an ongoing challenge. Players, markets, and game features are dynamic entities with their own fads and trends. This makes it wise always to keep an eye on machine performance. It is also important to make changes when factors indicate the experience has become stale. All properties, regardless of size, benefit from proactive measures to enhance the entertainment value of the gaming experience for their customers.
Many factors are taken into consideration when determining the ideal slot mix. When slot managers were asked to identify techniques that are important in maximizing machine performance, they provided the following ideas.

- **Develop Specific Goals**: Identify what you want to accomplish. For example, increase play results in the area to the right of the cashier’s cage. Another example might be to diversify your video poker players into slot or video slot players.

- **Research**: Start with the property’s past experience, if applicable. See what competitors are doing. It’s important to know the games players prefer at different casinos. Work closely with a slot salesperson.

- **Experiment**: Set up test areas on the gaming floor to compare the actual results of one machine type or game to another. Actual play results will show what customers prefer.

- **Observe**: Look at the foot traffic for each gaming section, and use that knowledge to set up a strategy. For example, put the most popular games in the highest traffic areas, or move them to draw customers to areas typically receiving less play.

- **Emphasize Variety**: Continue introducing variations so the gaming site remains flexible and expands the skill and involvement of customers. Keep in mind that most game themes can be changed completely within 45 minutes. A game change for a video slot machine usually requires a new set of computer game chips and new machine glass. Spinning reel machines require the game chips, glass, and an exchange of reel strips.

- **Stay Up-To-Date**: Keep the game selection fresh. Look at what’s current and what’s making money. Convert games that are not performing well to more popular games. Solicit ideas from vendors. Watch the competition to see what they choose. Consider their mix and paytables when planning changes. Determining the slot mix is evolutionary – set win and coin-in objectives, and develop a customer perception that your machines offer a better payback than your competitors’.

- **Analyze**: Analysis is critical to determining the ideal slot mix. Key business tools used to achieve this goal are slot data reporting systems, various accounting reports, and market research that provide critical data needed to develop a game mix tailored to the property. This data can be used to develop plans of action targeted to increase a site’s competitive advantage. Compare actual performance to expected performance levels, and compare statistics against your competitors.

- **Keep Trying**: Determining the ideal slot mix is a constant quest. All successful gaming managers work continuously to attain it. New games are constantly being introduced, and markets change in dynamics. Technology changes and so do the players.
The ultimate goal is to maximize the win-per-machine for every gaming machine on the floor. The coin-in amount is another important gauge. Watch for trends in both win-per-machine and coin-in-per-machine. An increase or decrease in coin-in indicates whether or not a given game is performing well. Possible analysis variables include game type, percentage, denomination, glass graphics/theme, specialty play features, and location on the gaming floor.

While an ideal slot mix may be a goal that is always just out of reach, constant attention is vital to achieve the maximum return on investment. And for those who do their homework and find the ideal slot mix, it is only a matter of time before updating will be necessary.
Finding the Right Slot Mix in a New Gaming Market

Gaming operators in new markets have additional challenges when seeking the ideal slot mix. In these jurisdictions, there are no competitors to compare against or past experience from which to draw.

A few general observations about gaming apply to most sites. Statistics show that casual players (often characterized as tourists) tend to favor spinning reel slots. Local residents (often the more experienced players) in established markets prefer video poker machines. Players visiting new gaming jurisdictions are most familiar with traditional spinning reel slots. Experience shows that as players gain experience, they sometimes migrate to video poker machines for the following reasons.

- Experienced players enjoy a higher level of interaction with machine buttons and display monitors.
- Players feel they can significantly affect the outcome of the game with the use of a “hold” strategy.

Another rule of thumb: a 25-cent reel slot retains approximately 10 percent and holds back about twice as much as a 25-cent video poker machine, which retains approximately 5 percent. Translation: If $1,000 were played into each unit, the theoretical revenue for the reel slot would be $100, compared to $50 for the video poker machine. This generalization, however, varies from market to market.

IGT has vast experience as a machine and systems supplier in gaming markets around the world. Our experience developing gaming machines and working with a large number of customers over the course of many years has provided us with a wealth of knowledge about the industry. As the primary interface between IGT and its customers, IGT account executives have detailed knowledge about gaming machine trends. This knowledge is a valuable resource for both experienced and novice gaming operators developing a new market.
Items to Consider When Selecting Games

Keep a vigilant eye on customers’ gaming tastes and offer gaming experiences that are suited to the preferences of the clientele. Consider the options described in this section when selecting games.

Video Slots

When video slots were first introduced, players considered them to be too complicated to understand. Since these initial offerings however, video reel games have gained a loyal following due to some noticeable technical advancements.

- Today’s machines prompt the player visually with sound, highlight winning symbol combinations, provide instructions via Help screens, and offer payout and payline listings. These enhancements result in a shorter learning curve for new players. This makes the experience more enjoyable and adds the potential for increased earnings for the operator based on faster game play.

- Second-screen bonuses and animation allow for a tremendous amount of creativity in the game design process. The games now offer more entertainment value than ever before, which makes patrons want to play longer.

- Game software enables operator selection of game denominations and, in some cases, the ability to offer game play in multiple denominations on one machine. With ticket-in, ticket-out game play, the games can be configured to offer wagers as low as one or two cents per payline. The game is no longer limited to accept only one denomination based on the machine’s hardware (hopper, coin-head, coin acceptor, etc.)

All of these options give operators the ability to offer games and machines that cater to a wider variety of players.
Spinning Reel Slots

Traditional slot games feature multipliers, buy-a-pays, and line games. These terms are different ways of describing the relationship between a player’s initial bet, the number of winning combinations, and the paytable established for the game.

- **Multipliers:** With a multiplier, any possible winning combination pays the player, and the payback for a single coin bet is multiplied by each additional coin bet. Example: A winning combination of three cherries pays 10 coins for one coin bet, 20 coins for two coins bet, and 30 coins for three coins bet.

- **Buy-A-Pays:** In a buy-a-pay game, a player buys his way into higher pay ranges for each coin bet. Example: With a one-coin bet, the player is entitled to payback on winning combinations involving only one type of symbol, such as cherries. With a two-coin bet, the player wins on combinations with two kinds of symbols – perhaps cherries and bars. With a three-coin bet, the player wins on winning combinations involving any of the symbols on the reel. For example, while the three-coin player wins credits for three 7s, the one-coin player gets no return on his bet for the same symbol combination.

- **Line Games:** In a single or one-payline game, winning combinations must line up on one specific horizontal payline. In contrast, a three-line game allows winning combinations to fall on any one of three paylines. A five-line game offers an even greater variety of possible winning scenarios: three horizontal paylines are crisscrossed by two diagonal paylines. In a multi-line game, players must bet increasing numbers of coins to activate additional paylines. These games also offer greater hit frequency than simple multiplier or buy-a-pay games.
While these game features are still a big factor in game selection, new technology is adding even more functionality to these gaming mainstays. These advancements are transforming machines that were typically inflexible by adding modern conveniences that today’s players truly appreciate:

- **Ticket-In, Ticket-Out Game Play** reduces the amount of coin handling and eliminates the need for players to carry buckets or trays of coins around the casino. This enhancement also offers a wider variety of denominations to players, including penny wagering.

- **Multi-Denomination Game Play** gives players more choices than ever before.

- **Four or Five Spinning Reels** offer more entertainment options to players while still staying within a familiar three-reel style of game play. The fourth reel of some games is used as a special bonus device to add variety to typical slot game play. These new slots are becoming increasingly popular with players.

Just like video reel games, spinning reel slots are now extremely flexible and provide a high level of entertainment.

* Where approved.

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**Video Poker**

Video poker games have traditionally been thought of as computerized versions of standard table games. With the advent of multi-hand poker, though, this perception started to change. Video poker players quickly became accustomed to these games, and now expect to see more features with each release.

These games now include new game-play options, including ticket-in, ticket-out game play, multi-denomination wagering, new variations on standard poker game play, second-screen bonuses, theme-oriented game play, and special sounds. Poker games keep a gaming floor fresh by offering entertainment value in addition to challenging game play.
Slot Merchandising

Offering a gaming experience that differentiates and distinguishes one gaming venue from another increases the chances for success. Merchandising and packaging have been proven through rigorous testing to provide increased revenue by increasing the player’s perception of the entertainment, fun and value of the gaming experience.

There are a myriad of methods to merchandise video and reel spinning slots. Some of the more popular methods are:

- Grouping themes of machines together or in a carousel
- Combining a variety of machine shapes in an area
- Distinguishing machine cabinets and stands with themed and vivid colors
- Differentiating traditional chrome doors by converting them to a color that matches cabinets, stands or glass
- Using distinctive glass graphics and colors
- Adding overhead signage and/or progressive meters with glittering lights and vivid colors
- Adding toppers to machines to make them more visible
- Using a game’s audio as a means to attract players
- Establishing high-denomination areas with additional amenities and personal service

Use one or more of these methods to increase player awareness of the games on the floor. Choices are limited only by imagination, gaming machine manufacturer selections, and budget.

Typically, the additional money spent on these special features will pay for itself through the increased revenue generated within months or, in some cases, days.
MegaJackpots® and Other Linked Progressive Systems

*MegaJackpots®* systems are wide-area networked progressive systems that extend the progressive concept from a single gaming site to multiple sites by allowing machines in separate casinos, parlors, and other physical locations to compete for the same jackpot. The machines contribute to and vie for the same rapidly growing jackpot prize. By increasing the number of machines, the progressive jackpot grows more quickly than a single machine’s jackpot. IGT’s *Megabucks®* system, for example, is highly visible because it creates the possibility for world-record jackpots, which triggers more game play. In essence, as the jackpot amounts rise, these games promote themselves.

Progressive systems are an ideal complement to the slot product mix offered to guests at any gaming site.* By providing the attraction of a multi-million-dollar progressive jackpot to individual properties in the system, the program is extremely cost efficient. The casino operator and machine/system provider share profits from these wide-area progressive machines. However, the jackpot liability is completely assumed by the machine/system provider.**

Marketing and public relations opportunities abound for casino operators with these types of progressive machines. Word of a multi-million-dollar jackpot draws local and regional media to the site. Record-breaking jackpots often receive national and worldwide media attention. After-the-fact promotions, such as visual recognition of the machine where the jackpot was hit, invite increased game play. Site promotions featuring progressive machines, both before and after large jackpots are won, have the ability to attract new players and encourage increased visits from established players.

Some of IGT’s hottest brand names are part of linked-progressive systems.* These brands are based on well-known, licensed properties such as television shows, movies and popular culture icons. Games based on licensed properties are one of the biggest trends in the industry today. Their brand names are highly recognizable, and this familiarity makes the games easy to promote.

* Where approved.
** Casinos in some jurisdictions share joint liability with the machine/systems provider.
Site Promotions

On-site promotions conducted by property operators are designed and implemented with specific objectives in mind:

- Offers such as drink or entertainment discounts, food discounts and specials, and paycheck-cashing promotions serve to attract players.
- Hourly drawings and double jackpot payoffs encourage patrons to stay longer.
- Bonus pay on certain blackjack hands and coupons that can be used in lieu of cash on table bets trigger an interest in table games.
- Prizes (t-shirts, visors, bottles of champagne, etc.) for jackpots over $100, free-pull slot machines, and tournaments entice patrons to play machines.
- IGT works with customers to offer first-to-market promotions, such as game launch events with giveaway merchandise that’s tied to the game theme.

Gaming Tournaments

Gaming tournaments serve multiple purposes:

- Provide a fun, social activity
- Introduce inexperienced or first-time players to the excitement of gaming
- Generate additional gaming revenue during slow periods
- Generate a mailing list for direct marketing or future special events
- Generate positive publicity
Tournaments can be set up in a number of ways. Two simple formats are credit slot tournaments and coin-in/coin-out slot tournaments:

- **Credit Slot Tournaments** use a selected group of gaming machines retrofitted with a temporary tournament software chip in order for the gaming machine to function on credit – no money is used. The player pays a fee to enter the tournament, part of which is contributed to the prize pool. Game play proceeds for specified periods of time (rounds), and the player who accumulates the most credits during the allotted time wins that round of the tournament. Scores for each round are totaled, and the player with the most points wins the tournament.

- **Coin-In/Coin-Out Tournaments** with prizes use a selected group of gaming machines that all have the same paytable and denomination. Players pay a fee to enter the tournament, and the fees are combined to create the winning prize. The players use money to play the gaming machines and keep the amount paid out by the machine. Players earn points as jackpots are hit. Players have a specified time allotment, but are not required to use all of their time. The player with the most points wins the tournament prize.

Tournament options are available for the most popular IGT gaming machines. Players can compete on the popular equipment already on the gaming site floor, eliminating the need for special tournament machines. IGT tournament game software provides other benefits, such as:

- Simple game program conversions instantly turn gaming machines into tournament machines
- Games are designed to accommodate any tournament format: marathons (can accumulate up to 9,999,999 credits); timed rounds (timer can easily be set up to 99 minutes, 59 seconds); credit rounds; time and credit rounds
- Free-play games, with no coins used, eliminate potential coin-handling interruptions
- Round robins using multiple carousels and multiple sessions using different formats for each round provide game variety
- The hopper is inactive while the game is in tournament mode, so removing the hopper is unnecessary
- Credits decrease as played, and wins accumulate on a separate meter

Regardless of the tournament format or structure, IGT can assist with the equipment based on gaming requirements.
Promotional Assistance from IGT

With more than 30 years of experience providing games for casino and lottery markets, IGT has a distinct edge in marketing and promoting our games to both our customers and to players. IGT’s Marketing department provides a variety of tools to help you promote your games:

- Game logos
- Machine photographs
- Other game-oriented artwork
- Promotional video segments for display on large, electronic indoor and outdoor signs

These items may be used inside and outside gaming venues, and in television and print advertisements. Game logos, machine photographs, and video files can be downloaded directly from a password-protected area of our web site (support.IGT.com/MediaCenter) or obtained from the game CD.

Examples of Available Artwork
The IGT Marketing team also performs the following promotional services:

- Public Relations personnel coordinate game coverage in player-oriented print media, press releases regarding specific products and progressive system jackpots, and coordination of television news coverage of major product launches and other company events.

- Our videography group creates promotional game segments for display on large indoor and outdoor video screens for high visibility.

- We promote games directly to players via our web site.

In addition, IGT utilizes the services of two advertising agencies to create and place the following game promotions:

- Advertisements in both casino management and player-oriented print media.

- Electronic and outdoor billboard display advertisements geared toward the player.

In some government-operated gaming markets, IGT works with local advertising agencies and gaming venue staff to create special promotions. These promotions attract players to the gaming venue by offering prizes in addition to the standard win for game play.

Contact an IGT account executive for more detailed information about the services IGT provides.
Gaming Systems
Gaming Systems

Gaming operation systems have become a main-stay in both casino and government-operated public gaming markets in recent years. These systems, powered by computers and made possible by network communication, provide operational efficiency, ease of data gathering, game management, and more. There are two types of gaming operation systems:

- Ticket-in, ticket-out technology (TITO)
- Gaming operation management systems

Ticket-In, Ticket-Out System

TITO technology features an independent system linking gaming machines to a central computer. Each gaming machine on a TITO system is equipped with a thermal ticket printer and a bill acceptor programmed to accept bills and bar-coded TITO tickets. Machines may be configured to accept coins along with TITO-generated tickets and bills or to accept tickets and bills only. Machines can also be programmed to pay a portion of each “cash out” in coins from the hopper – with the balance paid in the form of a printed ticket – or set to pay out printed tickets only.

In fully responsive TITO systems, the cash-out ticket printed by one machine can be inserted into the bill acceptor of any other machine on the system. The machine instantly loads the appropriate number of credits onto the credit meter. Cash-out tickets can also be exchanged for cash at a cashier’s station, redeemed at an automated ticket redemption device, cashed on the casino floor by attendants with wireless validation units, or held by the player for use at a later time.
TITO systems offer several key operating efficiencies:

- Reduction or elimination of hopper fills
- Simplification or elimination of handpays
- Reduction of dependence on coin-processing equipment and personnel

These benefits serve to increase play time and customer service – resulting in greater profitability for the operation.

The EZ Pay® Ticket System, IGT’s comprehensive TITO package, provides a wide variety of additional features.

- **Hand-Held Wireless Validation Terminals** expand customer convenience. Properly equipped floor attendants validate tickets with the hand-held scanner, print receipts from belt-mounted receipt printers, and pay customers on the spot. The entire process is secured by complex data encryption.

- **Automated Ticket Redemption Devices** (also called kiosks) provide an easy and convenient way for players to redeem cash-out tickets. High-security, electronically controlled coin and currency hoppers redeem valid tickets and pay the player.
• **Promotional Tickets** are used to attract new players to the venue or reward valuable customers. The tickets can be created in batches and mailed out to customers, or printed on demand. Players insert the tickets into the bill acceptor to redeem.

• **Purchase Tickets** allow customers to exchange cash for tickets of equal value at a cashier station via a secure ticket printer.

• **Standardized Ticket Size** matches US currency, enabling the use of existing bill-sorting equipment to count, sort, and separate tickets from currency during the soft-count process. Using a soft-count workstation, the system can control a manual barcode scanner or an automated high-speed scanner to reconcile cash-out tickets to tickets scanned during the drop process, view soft-count logs, and create detailed soft-count reports.

• **Interactive Touchscreen Cashier Workstations** accept data entry, process system commands, and communicate important system status and ticket validation information to the user. The system guides users through the ticket validation process using barcode scanners or manual data entry.
• **Accounting Functions** control the auditing and communication of all ticket and event information in the system. From slot floor, cashier station, and soft-count drop activities through archiving and exporting ticket data to a central accounting system, the system helps manage all ticket-in, ticket-out slot operations.

• **Audit Processes** enable the validation of torn, damaged, or defaced tickets, control the balancing and adjustment of cashier and soft-count sessions, and provide a variety of status and reconciliation reports.

• **Machine Meter Data** is collected from every machine connected to the system for reconciliation with audit and soft-count sessions. Meter data includes cash-out tickets issued and dropped, promotional tickets issued and dropped, and traditional coin and currency meter data.

• **Communication** between the system and most gaming operation management systems provides for audit, soft-count and cashier cage accounting for improved slot operations, as well as the ticket reporting functionality required by the local jurisdiction.

• **The** **EZ Pay® Ticket System** runs in concert with most gaming operation management systems or as a stand-alone system.
Gaming Management
Operation Systems

Gaming management operation systems provide valuable and detailed information about the performance of individual machines – and the customers who play them. The system is comprised of a combination of hardware components and software modules connecting gaming machines to computer analysis tools via a central computer system.

How It Works

Customers join a free “players’ club” that rewards members for gaming in a specific casino or group of casino properties. Players are issued a membership card that they insert into a card reader located at the gaming machine each time they play. Table games may also be managed by the system. The table games supervisor scans the player’s card into the system and enters any table games action.

The player accumulates points – for playing or based on winning coin-out – which can then be redeemed for cash, prizes, or complimentary bonuses (often referred to as “comps”) such as free meals, hotel room nights, entertainment, etc. The customer accumulates incentives – with every play or based on coin-out – making him/her more likely to return to the same gaming location during subsequent trips. Likewise, the more points accumulated by the player, the more valuable he/she becomes to the casino.

The system identifies the best players, what they play, where they live, etc. This information aids the casino in making decisions on how to best reward players for their patronage – avoiding the trap of either over- or under-comping. The system also functions as a tremendous marketing tool with the ability to identify groups of players: for example, 25-cent video poker players who visit 2-3 times annually, attend one floor show per visit, prefer to dine at the buffet, and travel an average of 250 miles by car to arrive at the property. This information creates opportunities to focus special offers and other advertising efforts at specific customer groups.
IGT Advantage™ Casino System

IGT Systems provides an advanced and integrated suite of products for casino operation management systems – the IGT Advantage™ Casino System.

IGT Systems offers the gaming industry possibilities never seen before. Our products come with a solid foundation and offer many options and upgrades to customize a casino management system. Additional products can be added in the future as requirements evolve or the competitive environment changes.

We recognize and appreciate the need a casino operator has to select functional elements of a total casino management solution from a variety of system sources. The IGT Advantage™ Casino System has been designed as a set of functional modules with interface points between the modules. This allows the operator to "buy or build" the best-suited application for each particular functional area.
• The **Machine Accounting** product has revolutionized traditional slot accounting systems by automating manual controls and procedures that accountants and auditors have been struggling with for years.

• The **Patron Management** and **Bonusing** systems are the industry leaders when it comes to multi-site player tracking and rewarding loyal patrons with exciting customized jackpots and promotions. Both systems have enhanced casino marketing strategies around the world.

The **IGT Advantage™ Bonusing** system catapults a casino management system from a simple data collection device to a revenue-enhancing system. The player interface at each machine features a patented backlit card reader bezel, streamlined keypad for PIN-protected transactions, a VFD designed for high-impact messaging, and **NexGen™** interactive touchscreen display. This unique setup allows operators to reward players at the machine in order to eliminate time spent at the players’ club booth and increase time spent gaming.
Value-added bonusing features include automatic rewards and incentives to players, exciting and unique promotions to differentiate you from your competitors, and tools to dramatically reduce the cost of player acquisition and retention.

- The **Cage, Credit and Table Games** module offers an automated integration of table play into traditional “slot clubs” combined with secure transaction processing in the cage.

- The **Security and Exception Messaging** module captures machine and player events (including hot player messages). Filters, audible tones (including voice prompting) and visual signaling (using different colors, blinking fonts, etc.) allow users to focus on only those events pertinent to their job functions.

- The **Responsible Gaming** module includes features as simple as displaying the current time of day on the player tracking display to things as complex as allowing players to enter self-imposed gaming limits. This module can also assist operators in preventing either self- or otherwise-banned players from receiving promotional materials or from participating in players’ clubs.

- The card-based cashless gaming product, **Coinless Transit™**, is the most mature, commercially available, magnetic-stripped, card-based product available in the market today.
• The Table Touch™ module uses cutting-edge technology to keep table games personnel informed about their games and players. The easy-to-use system features a wire-less touchscreen application allowing for real-time bet tracking, clear views of the rack count, quick assessment of needs and win/loss on each table, advanced capabilities in bet tracking and comping, and an optional surveillance interface.

• The NexGen™ interactive multimedia display is the latest quantum leap forward in player communication. It virtually turns each gaming machine into a player’s personal kiosk. Players can access point balances and other club functions at the touch of a screen. Built Ethernet-ready, NexGen™ is poised to lead casinos into a new era of marketing technology with in-house and cross-property marketing opportunities and stand-alone bonusing functionality.

Player tracking is considered the most powerful slot marketing tool in the world today. With a system designed to meet the needs of their properties, gaming operators can positively affect profitability by identifying valued customers by name, building player loyalty, and accumulating a timely and accurate marketing database with which to retain customers in a cost-effective manner.
Government-Operated Gaming
Gaming is an exciting form of entertainment that provides tremendous revenue-generating opportunities. Government-run gaming provides numerous benefits because it:

- Provides additional revenue for social, educational and other beneficial government-sponsored projects

- Helps control illegal machine gambling by licensing, regulating, and monitoring machine play

- Ensures funds are used for beneficial government programs instead of allowing illegal gaming operations to undercut possible government revenue

- Offers players a variety of games (traditional lottery, bingo, scratch-off, keno, lotto, pull tabs, and casino-style slot machines customized for individual jurisdictions) for greater revenue potential

- Discourages tampering due to continuous monitoring of the network of linked terminals or gaming machines by the central computer system

- Ensures prompt, accurate revenue collection, usually with electronic funds transfer (EFT) at any interval deemed necessary by a jurisdiction
The term “lottery” is often used in conjunction with government-operated gaming. Images of California’s SuperLOTTO Plus® or the multi-state lottery known as Powerball™ are most often associated with the term. For the purpose of this manual, however, state and provincial governments that regulate gaming devices located in racetracks and pari-mutuel facilities, entertainment facilities, bars and taverns, small charitable casinos, bingo halls, and in some jurisdictions, hotels, are known as lottery customers. The games offered by “lottery” jurisdictions are facilitated and played on Video Lottery Terminals (VLTs).

Video Lottery Terminals

VLTs look and operate much like their spinning reel and/or video slot machine cousins. The significant difference lies in how the terminals in a lottery jurisdiction are controlled. Components indicative of lottery gaming operations include the following:

- VLTs are controlled by a central monitoring and control system that is generally operated by a governmental regulatory agency (state/provincial lottery organization, racing commission, gaming control board, etc.).

- VLTs can only function when monitored or controlled by the regulatory agency’s secure central computer system.

- The VLTs specifications and choice of game types, paytables, and prizes are controlled by the regulatory agency.
The exact definition and specifications of a VLT vary widely from jurisdiction to jurisdiction. Some jurisdictions state that VLTs must be “video games” that cannot “dispense coin, cash, or tokens.” In contrast, others allow both spinning reel and video VLTs, with terminals dispensing coins or tickets. Some lottery jurisdictions have adopted the position that VLTs cannot contain any type of mechanical display (only video) or employ random-number generators. In all cases, the architects of the law and the government that implements the program are the determining factors.

Revenue Models
Lottery programs usually fall into one of four different revenue models.

Participation
Some jurisdictions have contracts with VLT vendors to provide machines and various levels of service for a percentage of the net revenue generated by the VLTs. The vendor owns the machines and acts as a technology provider to the lottery and assumes virtually all of the risk. Vendors also work with the licensed venues (racetracks, pari-mutuels) to promote and support video lottery operations.

Operator Market
In this model, vendors sell their VLTs through a local distributor or by direct sale to the operator. These operators usually service multiple locations and split the revenue with the licensed locations after the state receives its share.
State Operator

This is an example where the state purchases VLTs directly from an approved manufacturer and handles all aspects of the video lottery operation.

Direct Sale with Participation Games

This model allows manufacturers to sell their VLTs directly to the legalized locations. In addition, the manufacturers can provide certain machines on a participation basis. The locations are responsible for the purchase of their VLTs and perform their own servicing and game conversions.
Venues
Actual venues for VLTs vary by jurisdiction, but most governments select age-controlled locations with liquor licenses, such as bars and taverns, and regulated facilities, such as racetracks. There are two basic models:

Large-Scale Locations
Racing and gaming (pari-mutuel or racinos) venues, off-track betting (OTB) facilities, and government-operated or charitable casinos are attractive locations for large groups of VLTs.

VLT installations at racetracks and pari-mutuels (horse and dog racing, jai alai) serve a dual purpose by bringing new customers into an existing, regulated gaming environment and generate additional revenues to support racing operations and the ancillary businesses dependent upon it for their livelihood.

Small-Scale Locations
This model typically consists of bars, taverns and fraternal organizations. Space limitations in these locations often make VLTs with multi-game formats a great way to provide variety and keep player interest high.

Marketing aspects common to bars, taverns and fraternal organizations with VLTs include:

- The incorporation of gaming into the overall nightlife experience rather than being the sole attraction
- Catering mostly to local players
- Non-competition with other lottery games or gaming venues

Centralized Computer System Management
The systems used in these types of venues combine the control provided by centralized computer system management with the flexibility and mobility of linked gaming machines at single or multiple locations. Designed specifically for government-operated public gaming, a linked system makes it easy to manage a gaming network efficiently.

This type of operation features clusters of slot, video slot or video poker machines operating at racetracks or in bars and taverns. The machines are physically connected to a cluster controller or retail clerk terminal.

The central system software performs control and authorization functions, including monitoring and controlling the activities of the entire game network.

The central system collects accounting and security data from the network of gaming machines. It
provides both monitoring and data analysis and reporting functions. It performs the following:

- Gathers security and accounting data
- Provides end-of-day processing
- Stores information in a database for easy retrieval
- Offers flexible reporting with standard or ad hoc reports
- Provides enabling and disabling of gaming machines
- Collects revenue automatically; provides invoicing and EFT
- Validates cash-out tickets
- Tracks gaming machine performance

Additionally, customized reports and data exporting features enable a central system to be easily expanded by authorized members of the jurisdiction.

Central Determination Systems

Some lottery jurisdictions, and jurisdictions where Reel Touch™ Bingo terminals are placed, utilize Central Determination Systems (CDS). In lottery jurisdictions, the CDS supplies a video representation of a traditional paper instant lottery game – drawing winners from a centralized finite prize pool. The system generates a large virtual pool of Electronic Instant Lottery (EIL) game tickets and distributes them to game controllers. When players initiate game play at a Video Player Terminal (VPT), the game controller sends an EIL ticket to the VPT. The VPT then translates the predetermined outcome of the ticket to an animated display on the video screen. The CDS performs a variety of functions for Reel Touch™ Bingo terminals, including electronically determining the numbers, distributing numbers to terminals, distributing random decks of bingo cards to each bingo terminal, and evaluating all cards in play against the ball draw.
Reel Touch™ Bingo

Reel Touch™ Bingo terminals are in operation by non-profit charitable organizations and Native American jurisdictions. These bingo operations utilize terminals as technologic aids to enhance the play of bingo. These bingo terminals are used by players, instead of paper cards, as their means to participate in a bingo game.

The bingo terminal displays a bingo card, the numbers drawn by the CDS, and the matching numbers on the player’s card. The terminal also features a display representing the outcome of the bingo game in an entertaining fashion. The system linking the bingo terminals is integral to the operation of the game.

Players engaging one of IGT’s Reel Touch™ Bingo Series terminals view the bingo game in progress, the results of each game’s outcome, and all the possible winning combinations on a touchscreen LCD located in the top box. In addition, a graphical representation of the bingo game outcome, with winning combinations highlighted, can be viewed on the video monitor or spinning reels display.
Responsible Gaming

Employee Guide to Responsible Gaming
Responsible Gaming

While the vast majority of the public enjoys gaming as a form of entertainment, there are those for whom gaming poses a problem. IGT recognizes that problem gambling is a societal issue that cannot be ignored.

As a leading manufacturer of gaming equipment for entertainment purposes, we believe that it is incumbent upon all stakeholders in the gaming industry to take a pro-active approach to problem and underage gambling. Therefore, it is our mission to promote responsible gaming to our employees, our customers, and the public at large, and to support those agencies and programs committed to researching, preventing and treating problem gambling.

IGT acknowledges and assumes the responsibilities that go with being a leader in the gaming industry. We’ve long recognized the issues related to problem gambling, and we actively promote responsible gaming to our employees, our customers, and the public. The gaming industry is growing worldwide, so we’re renewing our commitment to raise awareness of problem gambling through education and to support agencies and centers that are researching and treating the problem.

- T.J. Matthews -
Chairman of the Board,
International Game Technology (IGT)

IGT is the only gaming equipment manufacturer in the world with a full-time position dedicated to responsible gaming. Our Director of Responsible Gaming is charged with implementing the company’s Responsible Gaming Program. Through this program, IGT encourages responsible gaming initiatives and works to create opportunities for public recognition of exemplary efforts. While IGT does not design or create responsible gaming solutions, we do seek to refer our customers to recognized authorities to make resources available for their customers’ responsible gaming needs. All IGT employees receive an Employee Guide to Responsible Gaming guide and are made aware that counseling and treatment, if needed, are available to them through our Employee Assistance Program (EAP). In addition, IGT conducts problem gambling awareness sessions at company locations throughout the US. To promote public awareness, IGT advertising includes responsible gaming messages with a toll free hotline number.
For more information on resources available from IGT, please contact:

Director of Responsible Gaming
International Game Technology
9295 Prototype Drive
Reno, NV 89521
Phone: (775) 448-7777

Additional Resources
Use the following list of contacts to obtain more information about responsible gaming programs and resources:

National Council on Problem Gambling
208 G Street, NE
Washington, D.C. 20002
E-mail: ncpg@ncpgambling.org
http://www.ncpgambling.org
Nationwide help line: 1-800-522-4700

American Gaming Association
555 13th Street, N.W.
Suite 1010 East
Washington, D.C. 20004
Phone: (202) 637-6500
http://www.americangaming.org

WAGER WISELY
If you think you might have a gambling problem, call toll-free 800-522-4700 for help.
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