

Cash handling journey - name your destination

The traditional life-blood of gaming, has technology eclipsed the use of cash or transformed the handling of what remains the favoured gaming currency of European gambling venues?

Cash handling is essential to the gaming industry. Put simply, it is the port of entry for players. How important is cash handling? Well, take away the cash handling peripherals and then you'll see. Cash handling enables the traditional gaming market to exist... like the wheels on a car, if they aren't there, you'll be going nowhere.

The market for cash handling, albeit a niche one, is well contested and extremely competitive. A whole world of solutions exist. In this report we'll be taking a look at how these solutions came to being and examine the real operator and player benefits. Moreover, we'll be asking how these products fit together, why did they evolve, and where do they fit in your location? We'll take a look at the journey of cash, the strategies adopted by manufacturers and the perceived benefits of different strategies.

With an ever-increasing cash-handling choice, the question of which product(s) to choose becomes more complicated. This report is a guide to those looking to discern the wood from the trees within cash handling jungle.

THE DEFINITION

We are referring to automatic cash

handling, in other words a mechanical, electro-mechanical or electronic solution to process money. This can be in the form of coins, banknotes, cards or tickets. This includes both cash handling on the components side, such as coin validators, banknote readers and coin pay-out hoppers. Furthermore, it includes cash processing machines, such as coin sorters and coin counters, right up to money changing machines. Naturally in the casino and VLT world the focus on TITO and cashless solutions will also be thoroughly investigated.

PAST CHANGE

It was pioneers such as Walter Hanke of wh Münzprüfer in Germany and David Bellis in England that enabled street gaming growth with the development of mechanical coin validators. These were fine tuned throughout the years and today wh Münzprüfer still produces mechanical validators, even if not for the gaming industry. These were predominantly for single coin validation.

Multi-coin validation came with the evolution of electronic technology. The obvious advantage for the player is that a whole range of coins could be accepted. Coil payout tubes were arranged in such a way to be able pay out in enough coins to cover potential wins.





EVERYTHING COUNTS...

The rise in importance in cash and coin handling in the gaming industry is highlighted by the focus on these products by the industry's largest supplier of components – namely Suzo Happ. The introduction of the Talaris range (formerly known as De La Rue) and the presentation over eight pages of the new gaming catalogue underline the growth in hi-tech solutions in this industry segment.

The Talaris Ntegra is a multi-currency desktop unit that counts and sorts

banknotes. The way this is done exemplifies the technological growth. At a rate of up to 1,000 notes per minute, notes are counted with utmost precision. The integrated printer then gives documental proof of the counting process. The Nvision is the big brother of Ntegra with two sorting stacks – so that operators who have to sort really large numbers of notes can benefit from this extra capacity. Coin counting is also covered by Talaris with the Mach series – including Mach3, Mach6, Mach9 and Mach12, depending on the number and types of denomination of coins required for sorting.

Coins can even be sorted into coin bags. Such products are standard in banks and are now becoming the norm for operators in the gaming industry.

The Talaris range from the banking world is now available for the gaming industry via Suzo Happ.

COIN RECYCLERS AGAINST COIN STARVATION

Coins were king for many years in cash handling. Note validation technology did not really take off until the 1990s and so until then there was no alternative to coin-in and coin-out. Originally coins entered were paid into a cashbox within the gaming machine and coins were stored separately for pay-out. The key for gaming machines that use coins (or notes) is to have just the right amount for paying out wins, but no more. More means dead capital, while less means that machines have to be refilled and remain out of order until they are. Time is money very much so in the gaming industry and the dread of any operator is machine downtime in busy periods. As we will learn more in this report, money handling plays a key role in attaining optimal machine uptime and the money handling choice is being more and more linked with this.

Coin recyclers became the norm in the street market (pubs, bars, restaurants and naturally arcades). Dedicated coin-handling manufacturers offer excellent solutions to the market, such as Money Controls in the UK and Azkoyen in Spain. This complete coin-handling unit consists of electronic coin validator, coin sorter which sorts the coins into the corresponding pay-out hoppers. Coin overflow and coins only accepted and not paid out are sorted into the cashbox. This allows a constant flow of coins. Such gaming machines are very often legally limited in pay-in and pay-out and the coin-handling equipment has often been designed to work around these limitations. The potentially very high pay-

out stakes brought about requirements of paying out a very large number of coins. The coin hoppers in street markets were not adept to handle such market conditions which lead to a new product segment. These hoppers with very large bowls guaranteed the operator the chance of paying out larger wins without coin starvation occurring. Coin starvation occurs when there are no longer enough coins in the gaming machine to guarantee the highest win possibility. As casino slots often are single coin denomination, a simple two-way sorter coin suffices.

THE MOVE TO TOKEN DENOMINATION

Casino operators were faced with having a large amount of capital bound within the gaming slots in the form of coins. A solution for many casinos, especially the larger ones, was to move to token denomination. A token was given a particular value. This was a great solution to improve cashflow but caused new challenges. Tokens have generally not been subject to the stringent alloy composition requirements specified by national banks. In other words, they have generally been simpler in their make-up, meaning they have been much easier to copy. Manipulation was the problem that had to be overcome. Entrepreneurs know that a problem is just an opportunity looking for a solution, and so a new generation of secure tokens was born.

A SLOT WITHOUT A NOTE READER IS...

Not every operator will agree with this statement, but a slot without a note reader is like a fish without water. There are markets in which note readers remain illegal, such as in the Italian 6a sector, but

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this simply creates a very large market for change machines located adjacent to gaming machines. People don't visit banks to withdraw coins, they take their cash from bank accounts via ATMs – via notes. The 1990s saw the technological advancement for note readers. Gaming operators around the globe have reported an uptake in their cashboxes due to note readers sited within gaming machines. The old adage is to make things simple for customers and note readers fit the 'bill,' very nicely.

Operator feedback spans a whole category for note readers – from an essential component right up to nuisance. The latter statement needs to be seriously questioned. To understand this, one must ask the question of the revenue generated by the person responsible for the machine. The UK market has seen margins tighten for pub owners on AWP's. People can only focus on things that bring them money. If AWP revenues continue to slide and the return no longer outweighs the time and resources invested... this then becomes a question for the whole industry chain to answer. The blame can be placed on the note reader, but the cause comes from another source.

For example, if an AWP is placed in a pub that is a managed house (in other words belongs to a chain of pubs and the landlord is an employee of the company) – the money placed inside the coin hoppers within the AWP does not belong to the landlord – he or she is the landlord and so follows the company guidelines. In such a case the landlord ensures there are enough coins for pay-out. If that were not the case the note reader would be inactive, so as game play is only via coins (to prevent coin starvation). This might be the right solution for the operator, but has proven very unpopular with players, leading to operator opinion that a note reader is unnecessary. This often happens when the money in the hoppers comes straight from the pockets of the landlord, such as in free houses. The capital within the machines could be used elsewhere. This is a normal human reaction and better operator education may not necessarily change his or her behaviour.

Legislation also plays its role in the placement of note readers. Some countries allow note readers to be fitted for change purposes only within the gaming machine. The AWP's in Belgium in bars and restaurants are such an example. Although change machines were often nearby, operators found from their surveys that cashbox take increased (sometimes dramatically) when the note changing facility was incorporated within the machine. From a psychological perspective, players appear to feel more in



IF YOU WANT SOMETHING DONE...

Cashless gaming provides players with new ways to play and win money. The ever-growing acceptance of cashless gaming internationally has raised the question as to how to support the players in attaining cashless payment. Tickets are paid out by the machines as winnings, but where do the cards come from? How can the player redeem the winnings on a printed piece of paper or card? The cage does and continues to provide this service. However, when all players have winnings that need to be redeemed, the demand on the cage rises over its intended limits. Gaming management wish to avoid players queuing at the cage. The solution is, therefore, to provide self-service terminals.

HESS Cash Systems from Germany has brought the necessary experience in money redemption and payment, collated from many years of successful global sales in the banking industry. The Polaris Scorpion caters for a wealth of player cash-handling options. Should the player win in coins, he or she can exchange these for notes at this terminal. TITO or winnings on a card can be exchanged for cash. Indeed, the player card can be

purchased from this terminal and the player can check the card balance as well. The gaming operator can have hand or jackpot wins paid out by the Polaris SCORPION. Chosen employees can receive a card each for the terminal to manage these pay-outs. Management can set individual pay-out limits on the card per employee. As the terminals are web-based, each and every transaction is monitored in real time and can be accessed from the Internet via a secure link. Therefore, the Polaris Scorpion is a multi-functional self-service terminal.

HESS Cash Systems provide island cashless solutions as well. An excellent example is the Polaris Scorpion Compact for carded cashless gaming. Players can buy the smartcard at this terminal and also check their balance on their card. The terminal offers full administration capabilities via the intranet to the customer. The small footprint with elegant design means that it can simply be installed at the gaming premises.

HESS Cash Systems markets its casino products around the world and can cite successful installations on all five continents. The 'made in Germany' seal provides the market with the necessary product quality. The terminals provide the gaming world with more control over their cash transactions in the casino or gaming hall. Less money in a cage and more in protected terminals translates as increased security for the personnel. The simple player operation has ensured that such terminals are quickly accepted and thus used by the player. It is a win-win situation for both players and staff.

Changing your money
is as easy as 1 - 2 - 3



Innovation by...

GeWeTe

cash handling technology

Cash-Handling - Made by GeWeTe

- Banknotes in - Coins out
- Coins in - Banknotes out
- High coin and banknote capacity
- High security cabinet

- 1st Insert coin or notes
- 2nd Select payout method (coin or note)
- 3rd Your money is dispensed



MAXI-CASH-RECYCLER



WGS 200



COIN-RECYCLER



CASH-RECYCLER



Feed in up to 200 Coins at one time



Special coin loading drawer



Coin loading drawer removable



High test level



High coin value in coin recycling



Casino payout

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GAUSELMANN
group

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I-DEPSYS - CASH VALIDATION AND STORAGE

i-depsys is a unique cash validation and storage device that can help protect and secure cash at all stages of its journey from customer to croupier, to cash-in-transit company, and finally to the cash centre and bank. In development for six years, this market-ready product's principle goal was to give operators the ability to know the true cash position of their business in real-time. At the same time, i-depsys handles cash in such a way that it eliminates the need to physically count cash at the end of the day.

"Six years ago we sat down with Martin Watson of Genting Stanley Casinos in the UK and described a product that would provide a real-time reporting system for cash and secure that money in a drop-safe," describes i-depsys' Andrew Beddoe. "He said that was great, but we should go further. If our system could eliminate the time-consuming, labour intensive physical cash count at the end of the trading day, then we would have a 'must-have' product on our hands. So that's what we did."

Shifting from the idea of a simple drop-safe to a system that securely stores bank-proof pouches proved to be a key decision in the development of i-depsys. Working with the established retail supplier, Volumatic, the combination of i-depsys' cash validation and storage solution with Volumatic's TruPouch, closed the loop on the idea. "We count the cash at the table and plunge it into the bank-proof pouch," explains



Mr. Beddoe. "The validator processes the transaction in real-time so that the operator knows their cash position at all times. The system eliminates shrinkage, is totally secure and rids the casino of the need to count their cash at the end of the day."

In the UK, where i-depsys has been extensively trialled, the busiest casino in the country currently takes over £1m in cash every 1.75 days. The count for this casino lasts between six to nine hours per day and needs four people to physically process the cash. The casino estimates that it's a cost to the location of £120,000 per year. An installation of i-depsys is now taking place after a successful trial. "Our product allows staff to make money not count money," states Mr. Beddoe. "It currently costs casinos a significant amount to count

cash. Cash is the most awkward commodity to secure. Our product eliminates all of that."

Following initial discussions with Genting Stanley, i-depsys worked extensively with the operator to ensure that the product met all the demands thrown at the system by Stanley's development team. It is the only product of its kind in the world that can not only count money quickly at the table, but gives operators the ability to eradicate the count, which means that the practicalities offer huge cost savings. "We are talking to all the major operators in the UK, including: Stanley, Grosvenor, Gala, and LCI," says Mr. Beddoe. "We have also had interest from major international groups."

The i-depsys unit itself can be integrated at the table with minimum disruption, much in the

control and relaxed when entering notes into a machine than a change machine. Putting notes into an AWP looks like game play... putting notes into a change machine suggests the player is losing and needs more change to continue play. And who wants to register to themselves and others that they are losing?

THE SOLUTION IS OFTEN A NOTE RECYCLER

A gaming machine with note-in and coin-out is a recipe for coin starvation. Arcades may get around this with trained personnel to refill machines. Staff may be available on-site to reduce downtime, but ultimately downtime will occur. Whether a player likes to wait to receive his or her winnings is debatable with a pretty clear direction. What happens to those machines where no trained staff is nearby to react, such as in motorway café,

Although change machines were often nearby, operators found from their surveys that cashbox take increased (sometimes dramatically) when the note changing facility was incorporated within the machine.

restaurants and bars? The benefits of a note recycling solution becomes much more defined in these circumstances.

Note-in, note-out has taken its time to enter the street gaming world. After all, technology required is much more complex and requires heavy investment. The timing for future return of investment must be part of the development plan for any such manufacturing company. This could explain the delay in the creation of such a product for the market.

The product pricing plays a role – it is naturally more expensive than a just note reader – while the question gaming machine manufacturers ask concerns the justification of this investment. Once again player feedback has been essential. Proven cashbox uptake has kick started

this market segment into life. The real trend in the street market is towards note-in, note-out. The number of manufacturers offering note recyclers has increased dramatically in the last year. Furthermore, several manufacturers offer different product options as well. The growth market is that of note recyclers in the street gaming market.

CASHLESS... THE WAY FOR THE CASINO MARKET?

Cash handling has taken a similar journey in the street market with coin validators and note readers. However, cash is not king in an ever growing number of casino slots, which negates the move to note recyclers. The reason is 'cashless.' Whether via card or ticket, players have become accustomed to receiving wins on a plastic card or via a paper ticket showing a barcode win. This has brought

same way that a chipper can be installed, or the unit can be free-standing with a bracket to link it to the table. In terms of cost, Mr. Beddoe estimates that in most instances the unit will pay for itself in nine months in terms of labour-savings alone. As regards to the elimination of forgeries, real-time reporting and theft prevention, then the speed of return could be as little as three months.

“The only way to defraud the system is at the stage at which the machine takes the money, whereby the croupier issues the player with more chips than the value of the cash to be counted,” explains Mr. Beddoe. “However, one of the latest features added to the i-depsys system is a CCTV overlay, which as the cash is counted at the table can burn the amount of the transaction into the CCTV footage. Operators can then data-mine to see exactly how much cash has been handled at the table.”

In the UK at present, the average difference between the operators’ actual and estimated drop is currently between 1-3 per cent, but can be as high as 10 per cent. However, in high volume locations that figure can tip towards 30 per cent, and in locations taking £1m over 1.75 days in cash, that discrepancy could be more than £1m per week. “When our first units went on site, operators were clicking against it for test purposes,” explains Mr. Beddoe. “Against the existing system in the first two hours the difference between the actual and estimated count was £540. What our machine counts is the actual physical drop that’s secure in the pouch. There’s no estimation involved in this figure. We also have ability to handle multiple currencies, 17 to date, with further currencies due to be added to the system shortly.”

Understandably, i-depsys has created a great deal of interest with UK operators having trialled the product to date. The ability to process cash at the table securely and accept 10 notes in less than a second has shown that it in



no way impedes the game. With an infrastructure in place in the UK and Europe to accept TruPouch by both cash-in-transit companies and the banks, the progress of i-depsys as a ‘must-have’ product, even in the depths of a recession, is progressing rapidly.

“Operators have to be clever about handling their existing money estate,” states Mr. Beddoe. “Capital expenditure is tight, but in terms of reducing costs and producing real-time cash reporting, there’s an argument that you need this system more than ever in difficult trading conditions. Speeding the process of cash to bank means that operators are earning interest more quickly - they don’t have to buy cash in - and they can do a money search on the system, which will tell them exactly what’s in all the pouches on all the tables, enabling them to

pro-actively manage their money quickly.”

Concurrent with development of the casino product, i-depsys is currently working in the retail sector, with Volumatic having created a simplified version for retailers to handle cash in store. A recent deal that saw the installation of 3,500 devices to a high street UK retailer has reduced cash handling costs by 75 per cent. Volumatic units are currently installed in the major supermarket chains including: Asda, Tesco, Morrisons, Boots, Somerfield, Co-op, Wilkinsons etc., and is accepted by all banks and cash-in-transit companies in the UK. “Volumatic has established an extensive distribution network for TruPouch with around 60,000 TruPouches passing through the retail environment every month,” describes Mr. Beddoe. “We have developed the system in conjunction with them, whereby we focus wholly on the gaming side and Volumatic concentrates on retail. It’s been a great fit.”

i-depsys is rolling out across the UK, but already Mr. Beddoe and his team have their sights set on broadening the reach of the product. Having created a solution for table gaming, the next sector for i-depsys will be slots. “The TruPouch has the same footprint as a secure stacker unit and we currently have working prototypes within slots that eliminate the double counting of cash and the security risks of cash handling on the slot floor,” states Mr. Beddoe. “Gaming machines take an awful lot of notes with cash exposed at the point of transit and count. By securing the cash in the machine in a TruPouch the cash is secure at all stages of the process and you have also removed the need to count it - again. At present, the validator counts the cash once it’s been deposited in the machine, and then the operator counts it again once it’s been transported from the slot. The operator is counting cash that has already been counted by the bill validator. We remove the requirement to count that money a second time.”

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Andrew Beddoe, i-depsys.

great economies of scale to casino operators. Coin handling has often been service intensive. The desire to pay out coins in a comfortable way led to coins being projected upwards on a long neck (picture a giraffe) on slant tops. A great solution, but it’s also service intensive as coins can easily get dirty and bent ones become fast in the machine. Cashless resolves these problems and significant cost savings have been the result. Note readers remain the norm on casino slots, with game play via TITO (notes or ticket) and/or card.

NECESSITY OF COIN/NOTE COUNTING AND SORTING

Two of the main challenges facing the market today are personnel and money management costs. Over the years stakes and prizes have risen in many jurisdictions - in effect ensuring that

more money is circulating in the gaming machines at any one time. Money brought into the machines has often been sorted. The challenge is to bring the money in the cashbox back into circulation. This can be seen on different levels. The number of machines linked either due to operator and/or legislative demand is rising and will surely continue to rise as governments can legislate to be able to track online in real-time cash in machine cashboxes.

Companies specialising in allowing operators to monitor their cashflow are also on the rise. The idea is to keep the capital, laying idle in the machine, to an absolute minimum. Operators are starting to professionally manage the flow of money in their arcade. The machine and systems in the arcade should be chosen

not only to facilitate play, but also to achieve efficiency in money management. Keep the monies in flow within the arcade and siphon off the excess.

Cash and tickets still need to counted and sorted. The demand for such products has grown strongly over recent years and professional companies that originate from the banking sector offer operators a wealth of solutions.

HAND-IN-HAND WITH MONEY CHANGING

It is only natural that the demand for money changing has kept pace with validation advances. Money changing machines come (almost) in all shapes and sizes and price categories. The interesting fact in Italy is that note readers are prohibited on standard AWP’s and this saw the demand for compact change



BIGGER IS BETTER

Innovation can be defined as providing solutions to new market conditions. The German AWP market is an excellent example of this. The change in operating conditions due to the gaming regulation (Spielverordnung) that came into power in January 2006 set the scene. This led to a trend towards new, casino-like arcades with major operators investing heavily in designing stylish multi-concession arcades. Each gaming concession in the German AWP market allows 12 AWP's. The trend is plain to see in Germany to multi-concession arcades, with numerous high-end arcades with eight or more concessions. Arcades with even more concessions are being currently planned and built.

The question of money management is a different one in multi-concession arcades than in single arcades. The amount of cash to manage rises. GeWeTe – Germany's leading change machine supplier to the local AWP market – foresaw this development and brought several highly innovative products to market. The new Mega-Cash-Recycler is the answer to cash handling management in larger locations. It can recycle both coins and notes in a fashion previously unheard

of. The coin recycling capacity is at over 50,000 euros and the operator can choose from several note dispensing possibilities – right up to four note dispensing modules, each with 1,500 notes each. The 6,000 note dispensing capacity can be linked with a banknote recycler – either the Merkur Dispenser 100 from Merkur Gaming (100 notes) or the BNR 421 from MEI (430 notes). An integrated 15ins. touchscreen monitor gives the necessary transaction overview.

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machines rise dramatically (the new VLTs have note readers fitted).

Companies such as Alberici, Comestero, Maggi and VNE have grown strongly and successfully market their products to the international marketplace. The changes in money handling are actively being integrated. Comestero offers the new Smart products from Innovative Technology in their Nexus changer and VNE has made a strong impact in the Italian market by integrating the Merkur Dispenser 100 from Merkur Gaming. German change machine manufacturers focus more on the high-end side of the market. Suzo Happ in the Netherlands offers the advantage of implementing the company's very own payout units – either the Evolution or Cube hoppers – within their change machines. The new Arcade III and Maxi III changers provide operators with a wealth of choice.

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COMPONENTS ARE MERGING INTO SOLUTIONS

The is the definite theme of this article. Competition and customer requirements have either been pre-empted by manufacturers or they have been forced to react to create better solutions. Gone are the days of seeing a single transaction in isolation. Money Controls has grown to be such a major player in the local UK AWP market through its perception of the

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NEW TRENDS - IT'S ALL ABOUT THE SIZE

The beauty of money handling is that the companies involved never stop looking for new solutions to benefit the player and operator. Take Astrosys for example: the GBA ST1 integrated stacker has been developed to offer a new payment system that offers a horizontal note entry for top bill insertion. Called the GBA ST1-T, this novel adaptation is designed specifically for any type of machine that features a console-type control panel, making it ideal for such amusement devices as cranes, sports games and videos.

Manufacturers of coin payout hoppers have also risen to the latest market challenges. For example, the Italian Comma 6a market demands that three coin denominations are paid out (EUR 0.50, EUR 1 and EUR 2) but the machines are often smaller than in other countries. The solution has been to cascade different denominations in one hopper so that three different coin types can be paid out by either two hoppers or even just one. Operators can choose between a wealth of hoppers, for example, the compact hopper from Money Controls, the Cube hopper from Suzo Happ, the Hopper Discriminator from Alberici and the T3 and

needs of complete money handling – e.g. coin acceptance, coin sorting and coin payout... the whole process. Such a philosophy dominates company strategy.

Azkoyen in Spain and Alberici in Italy adopt this strategy successfully, too. Manufacturers that offer not just note readers, but note recyclers are proving a complete or improved banknote solution and are seeing demand rise sharply.

The casino market relies heavily on banknote acceptors. This is the port of entry for players and quality is key. Placing bill readers on slots had an immediate effect on profitability and security. Manufacturers such as CashCode (part of Crane Payment Systems), JCM Global, MEI Global and Money Controls have placed key research and development in their banknote readers, with international successes confirming their dedication to the market.

Discriminator hoppers from Azkoyen.

Innovative Technology has taken this concept a step further with the SMART hopper. The SMART Hopper is a true multi-coin hopper - operating at 12 coins per second it eliminates the need for multiple hoppers, sorters and coin routing.

Over the years slots machines have tended to become smaller and/or thinner. The challenge to the manufacturer is to include all necessary components in a shrinking cabinet. The cash handling industry was forced to innovative to offer smaller solutions as well. Take the example of coin validation. The traditional 5" coin mech is being replaced in many markets by the 3½" coin mech. NRI was the first company to introduce an electronic 3½" back in the 1980s with the G13.

This modular size has often become the standard and operators can choose from an excellent range of such electronic coin mechs – such as the EMP 800 from wh Münzprüfer, the SR3 from Money Controls, the RM5 HD from Comestero, the AL range from Alberici and X6 from Azkoyen to name just a few. Casinos that still use coins and/or tokens have a further requirement – acceptance speed. Some manufacturers have a high-speed version of their 3½" coin mech. Some have a dedicated casino product. The Microcoin QL coin validator is a high speed multi-coin validator used extensively by casino manufacturers. The Condor from Money Controls is their specific casino coin / token-handling unit.

Today, a note reader for casinos must offer more than just great and safe banknote acceptance. Both the ICB from JCM and Easitrax from MEI underline the additional features operators can adopt from a note reader. Both systems allow the operator to instantly see how many types of different denomination notes are in the respective cashbox, making use of RFID technology. Detailed reports give operators additional confirmation of the cashbox contents. Furthermore, cashboxes no longer need to be strictly aligned to a specific slot as once the information has been captured, the memory is wiped clean and the cashbox can be inserted into another slot.

SECURITY KEEPS ON GROWING

Security is a major issue for operators on a number of levels. Security is not just limited to the exclusion of fraud coins or notes, although this is a major innovating driver for the industry. Money handling products support and control the money

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REDUCE, REUSE, RECYCLE

When the market cannot supply the right product...do it yourself. This was how MEI was born in the 1960s, when part of the Mars group required a coin-handling system for the new and upcoming vending market. The parallel in the gaming market is Merkur Gaming of the Gauselmann Group.

Identifying the future requirements of a changed gaming law, it was the company founder and CEO Paul Gauselmann who had the vision of successfully introducing a banknote recycler into the German AWP market. The Merkur Dispenser 100 has the 'made in Germany' quality that has seen it quickly grow to a product often seen as a necessity in the German AWP market. With the capacity of recycling 100 notes, the Merkur Dispenser 100 offers operators often enough capacity. The 'made in Germany' quality speaks for itself with it becoming an operator favourite in the German AWP market. International demand, especially from change machine manufacturers, shows that the Gauselmann Group have developed a product with real operator benefits. Understanding operator requirements lies at the heart of the Gauselmann Group with over 350 entertainment centres in operation around Europe.

handling process – to avoid human error.

Money is attractive to everyone and each operator has to secure the process and minimise costs. The potential attack via manipulation is a subject that has plagued operators for many years and will continue to be an area of focus. Money handling manufacturers naturally understand how disruptive manipulation is to their business. Miller Heiman teaches that one of the major buying influences is when the customer feels threatened. It is not an infrequent occurrence that a money handling manufacturer has lost business due to product manipulation in the field. A market for manipulative tools exists.

The money handling industry is extremely dedicated and the innovations in security continue to prevail. The major jump was from standard or binary communication

The market for note recycling has grown quickly in recent years and operators can choose amongst a wealth of products. CashCode's Bill-to-Bill 60 can recycle 60 notes. The Vega from JCM offers a recycling capacity of 30 notes and the Billhopper from Azkoyen can recycle up to 10 notes.

Innovative Technology has chosen a very interesting route with the SMART Payout that recycles 80 notes of mixed denomination – thus being able to pay out all notes that are inserted. This is coupled with the brand new NV11 that has a recycler float of 30 notes.

Change machines often require a much higher note capacity. The Merkur Dispenser 100 has found a keen market in the field of smaller and medium-sized change machines. Larger change machines demand more note recycling and two companies stand out here – namely CashCode and MEI. The Bill-to-Bill from CashCode can recycle up to 300 notes. With such a high capacity, simple note-in and note-out becomes a priority and the fact that the Bill-to-Bill can load up to 25 notes at one time into the mechanism and pay out up to 20 at a time clearly make this product user-friendly. The BNR from MEI when equipped with the BNF can accept up to 30 notes at one time and the BNR itself can pay out up to 15 notes at one time. Research on bringing optimal user benefit has seen MEI introduce a loader unit within the BNR – here up to 300 notes can be stored to replenish the four recycling modules (of approx. 170 notes in total). This is a further step in preventing note starvation, in other words that the recycler can pay out the required amount at all times.

to serial, then to encrypted serial. Money Controls has played a major role in the European AWP industry with its ctalk protocol. Innovative Technology has its own SSP protocol, on which the company places particular emphasis. The EBDS+ protocol from MEI is renowned for its security. The ID003 protocol from JCM is used by several other banknote reader manufacturers as well.

The range of protocols reflects the individual market needs. However, it is also a reflection of the constant drive in the market to offer the best and most secure protocol in the market to differentiate each supplier from their competitor. The question may be raised as to whether a single secure protocol – independent of the manufacturer – would be more beneficial to the market place? The move to USB secure protocols may be just that answer.



Security is a major issue for operators on a number of levels. Security is not just limited to the exclusion of fraud coins or notes, although this is a major innovating driver for the industry. Money handling products support and control the money handling process – to avoid human error.

PROACTIVE CASH HANDLING

The cash handling choice is becoming more complex. Operators can choose between low cost and high end solutions. Experience has shown that a buyer who is not aware of the product advantages will focus more on price. This often has an adverse effect if the product does not match the needs. Cash handling manufacturers are dedicated in informing the end users of the advantages of their products. MEI has proven extremely successful with its value-added (VAT) strategy. MEI and partners work directly with end users (e.g. casinos), introducing the Cashflow SC directly to the slots management team. A free-of-charge trial allows the slots personnel to get to know the product and compare it with the note readers in operation. The traditional route is then no longer for the cash handling manufacturers via the OEMs, which allows cash handling innovation to



TICKETS PLEASE...

Two major manufactures dominate the ticket market – namely FutureLogic and Transact, while the link between Nanoptix and CashCode has enabled another major money handling player to bundle these products together for slots manufacturers.

The market for ticket printers is still relatively new (outside the US) and the economical product cycle is still seeing growth in a number of markets. To prevent it being seen as a commodity which is price sensitive, manufacturers are integrating new solutions to make their products stand out in the value chain. PromoNet from FutureLogic integrates a marketing and loyalty programme into their GEN2 ticket printer. Players can be rewarded when the operator chooses – be it on special occasions or just as a spontaneous

thank-you for their business. Additional services can be highlighted and promoted via such a system – for example the in-house restaurant. This motivates player loyalty – a key feature in the ever-competitive gaming world. Information is provided in real time so no player card is required to award a player anonymously.

The EPIC 950 printer from Transact includes its patented ServerPort feature to connect the printers to the customer playing tracking system. It can generate countless ticket options and promotional layouts with the ticket layout editor and can be saved in the printer's very large memory.

Crane Payment Solutions along with Nanoptix has developed a cash management solution. Using the CashCode one note reader and a Nanoptix Paycheck 4 printer access can be attained to three separate reports: Last Five Bills Inserted, Performance Report (for on the spot validator and printer statistics) and the Cashbox Audit and Performance Report which provides information on the financial contents of the cashbox. This service gives additional information when required by the operator.

host of operator benefits, for example the Ardac Elite's state-of-the-art imaging technology and 4-way barcode reader allows customers to insert barcode tickets in any orientation, increasing acceptance rates and user satisfaction.

The MEI Cashflow SC has grown very strongly in the marketplace as the product speaks for itself, as proven in the VATs. Excellent acceptance rates and minimal maintenance requirements have made this a firm favourite on the casino floor.

Companies such as Innovative Technology and GPT are following the Japanese method of firstly providing low cost solutions and then continually upgrading them. Such companies are now offering banknote reader high-end solutions as well with the NV200 and GBA GV1.

AND THE FUTURE?

Cashless gaming is gaining the upperhand in the casino environment. Casino slots have traditionally chosen the highest quality components. The machine pricing market being relatively inelastic and the sheer play demand has driven this. The demand for redemption machines should continue to rise. The security and flexibility aspects speak for themselves. The cut-off point is often a comparison between such machine pricing and wage rates in the local country.

GDP rises in South America of over five per cent each year over the last 10 years could mean a new important market for such machines. Similarly, the demand for coin and note counting/sorting machines should grow strongly. These machines, which are required at every branch of a bank are becoming more and more important to operators.

Major changes are also taking place in street gaming. Multi-games, server-based gaming, Internet lottery terminals, high-end cabinets – gone and going are the days that a slot machine was placed for only as long as the individual game was popular. An extensive choice of games that can be constantly updated means that a slot machine will tend to spend more and more time at a single location.

Price should not be such a driving factor in such circumstances and the choice of the correct components is therefore much more important. Casino-style cash handling components are almost the standard in the VLT market. They are being seen more and more in arcades. Note recyclers show their real value when the number of attendants are not sufficient to provide money changing facilities to players. This is particularly the case in the food and drink sector, i.e. machines that are placed in pubs, bars, kiosks and restaurants.

transfer into the gaming market at a quicker rate.

INNOVATION IS THE KEY

Innovation plays a key role in cash handling as we have seen throughout the report. A further excellent example is with high-end banknote readers. JCM has continually brought high-end solutions with the WBA, UBA and now the iVizion. iVizion sees better with Contact Image Sensor (CIS) Technology, 100 per cent full image capture of note and ticket, optical note centering and has excellent optical and mechanical anti-stringing technology.

CashCode introduced the One banknote reader to the market last year as the universal solution for the gaming market. This universal approach reduces logistic and support costs, while improving overall performance, reliability, and future proofing. Money Control's Elite provides a

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BRAND NEW THINKING

Specialist OEM solution provider, International Brand Gaming (IBG), has signed a significant new agreement with cash handling experts Astrosys International that will see the two companies working together to expand ASY's international contact base and take advantages of opportunities in global markets reaching as far as South America.

International Brand Gaming (IBG) offers a support function to manufacturers through complementary products, market opportunities and access to new technologies, which enables companies to grow their business at a truly global level. Having recently announced an agreement to represent Elite Casino Products at a sales level in the US and Europe, IBG has linked with Astrosys International as a principle representative of its Microcoin and GBA brands in new markets around the world. "I'm delighted with the deal we have forged with Astrosys International," stated International Brand Gaming's Managing Director, John Malin. "While respecting their current sales and distribution networks, this

arrangement will allow IBG to introduce Microcoin and GBA through its own specialised sales channels, providing IBG customers with greater flexibility and opportunity in their product selection. The Microcoin and GBA brands represent a terrific set of products and our job is to help grow this business into markets in which these brands are a perfect fit. This relationship is a win-win for both sides."

Robert Bird, Group Marketing Manager for Astrosys International, comments: "We have known John for a long time and have a deep respect for his ability to develop and nurture business relationships. It is this ability and his customer-focused attitude to delivering tailored solutions which will make IBG a success. This gives us the confidence that having our Microcoin and GA brands in his portfolio will not only assist John in his endeavours, but will successfully generate business opportunities."

"International Brand Gaming is an innovative solutions provider for global OEMs," outlines Mr. Malin. "What that means in practical terms is that IBG provides the glue that links companies to markets, to new opportunities and to partners that can provide mutually beneficial solutions. Your business might already have in-roads into the US, for example, but are you resourced organically to expand into S. America? IBG works with an extensive contact base built from over 25 years experience in the international gaming industry to fit the global market into just one contact. IBG is the intermediary with the experience and global presence to offer manufacturers solutions beyond their current scope."

John Malin, the Managing Director of International Brand Gaming, has quickly grown a team to take advantage of the knowledge base of the company. With plans to open offices in the US and with partners in South America, IBG is building upon its existing technical support team based in Oxford, UK. IBG is the conduit to international business in the gaming sector. Already connected to European and US manufacturers, the company is leveraging its knowledge base and technical expertise to enable others to build infrastructures at an international level.

"We facilitate the introduction to companies seeking expansion in key markets," commented Mr. Malin. "We have the knowledge base that allows us to help manufacturers at all levels to meet their own business strategies and fulfil their potential. We can take the cost out of the machine build, introduce partners in expanding international markets, build machines and create new network systems."

The distinct advantage of IBG is that the company is already resourced and connected in markets throughout the world. "We can distill the options down for each individual customer and offer the best route to market to fit their individual needs," describes Mr. Malin. "We recognise the opportunities of product distribution and that of bringing parties together, be it in the need of manufacturing facilities in US, cabinets in Europe, software and graphics capabilities in the UK or games distribution in Colombia - it's all about solutions."

Coin recycling has always helped maintain machine uptime. The growth in banknote readers sometimes caused a imbalance, resulting in coin starvation and machine downtime. The note recycler is bringing this balance back into harmony. The result is higher machine uptime which warrants the investment in such products. The choice is ever growing in this segment and the operator can choose the number of notes that need to held in the recycler to secure machine uptime.

CASH VERSUS CASHLESS

In regards to replacing cash with either TITO and card cashless payment systems, the jury is still out. Card systems provide more flexibility and the ongoing costs are lower. Ticket printers need refilling, but in a casino environment with expert personnel on the floor, this does not pose an issue. That's not the case in a regular VLT environment, however, the fact that this market segment often prefers TITO, underlines the popularity of this system. The fact that the printed paper gives the resemblance of real money where the value is instantly visible speaks volumes

for the player. The factor of anonymity is also crucial, which plays to the strength of TITO - but then there have been far too many TITO versus smartcard debates!

CASH IN THE SYSTEM

Speaking to Slovenian casino management systems (CMS) experts, Advansys, they confirmed that the relationship of a CMS solution with currency on the casino floor, should be one of tracking the cashflow not only in terms of security, but also to attain better response and overall service (for all levels of customers); to reduce labour force costs (as a result of faster cash counts, hand pays, bill clearances) and increase performance of the casino floor by accessing and analysing all relevant data. In regards to casinos, the advantages of going cashless do mount up, with Advansys' slotscanner solution delivering more information and marketing possibilities to customers using tickets rather than cash. To operate Cashless (with smart cards), slots must have EFT-Electronic Found Transfer or AFT-Advanced Found Transfer SW installed by the slots manufacturer. This usually

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means slots with SAS 5.0 and 6.0 version or higher. In the 'real' casino environments in Europe, there are still a lot of very profitable/popular slots that don't support these two functionalities, which makes it easier and faster to head down the ticketing route. To operate TITO, slots must be 'Ticketing Ready,' which means that slots support ticketing functionally. Beside this slots must have installed ticket printers. According to Advansys, upgrades necessary to install a TITO-ready slot floor is often quite expensive, but the benefit is that as a result, 'ticket-money' is spent easier and faster than cash. "There is no particular difference between cash/tickets/cards in terms of ability to track and solve the issues," stated an Advansys' spokesperson. "However, different markets have different preferences. South America is mostly asking for cashless/smart cards solutions, while Europe is more oriented towards tickets. We suggest to operators to choose the cheapest and if possible also fastest way in terms of implementation necessary to prepare their slot floor for either smartcards or ticketing."



MAKING YOURSELF ACCOUNTABLE

UNIT4 Business Software, a provider of Enterprise Resource Planning (ERP) recently sold its CODA financial management software solution to UK casino operator, Rank Group. The solution, which will be implemented by UNIT4 consultants, will support the financial operations of more than 135 Mecca Bingo, Grosvenor and G Casino outlets.

"Selecting a new system that would support our future growth was critical," said Clive Jennings, Group Financial Controller at Rank. "We asked a number of the major accounting firms which system they would recommend, carried out a detailed market evaluation of those systems and then sought out client references for a solid accounting platform. The responses all pointed toward CODA. An important factor was the capability to easily adapt the system to the business. Its flexible chart of accounts structure maps to our business, allowing us to add new businesses and gaming outlets around the world as required. The CODA software is truly international and will help us develop a single view of our financial performance around the globe."

CODA Financials will interface with each gaming outlet's management system to capture performance and accounting data. Of particular importance to Rank is CODA's ability to manage and reconcile the large volumes of cash it receives. Each day the system will automatically manage this process, reconciling cash with bank statements, calculating revenue and VAT liabilities, and quickly identifying any anomalies. The system will also remove less value added activities; administration for instance will be reduced using workflow allowing the 35 finance professionals at Rank to concentrate on business analysis and individual site performance.

"We expect the UNIT4 solution to enhance the efficiencies of our accounting processes and provide the capacity to accommodate multiple languages allowing Rank to use it as a single finance platform for

the company" said Clive Jennings.

Speaking to Group Marketing Director, UNIT4, David Turner, he explained that one of the most important elements of CODA, is the unique way in which it is able to capture information down to an unrivalled level of detail. "We capture money in whatever form it appears in your location," stated Mr. Turner. "Be that as cash, card, cheques, tickets, vouchers, etc., we capture and record it at the source. We record the exact location on the floor, the exact machine and type of game being played. This allows us to match the cash to the exact profit-centre in the casino."

The reconciliation of the cash goes beyond a regular accounting package, by analysing by specific area of the casino, and is unique in combining everything into a single ledger system. "Traditionally, operators would have one ledger for the accounts, another for money going out, another for specific projects etc.," explained Mr. Turner. "CODA is multi-dimensional, combining everything into a single database that allows you to get an overall multiple view of everything - in real-time. You can process hour-by-hour if you want, or close your books at the end of every trading day, which simplifies the process massively."

CODA also allows for the segregation of duties, ascribing every user with a separate profile, which segregates duties down to the 'nth degree.' While the duty manager is tracked in terms of their responsibility for recording the machine figures at the end of a shift, the logging of cash and the reconciliation of information between different individual members of staff is accounted for by the CODA system.

Integration is hugely important and to this end CODA is designed to easily integrate into other systems in operation at the location. "We can interface with all existing systems currently in operation in casinos, to ensure that we capture all of that information too," said Mr. Turner.

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