Transforming a high volume cash processing operation with Glory banknote sorting solutions

Cash Centre, Euro-zone
“The bank has spent nearly one million Euros to remodel and refurbish the cash centre, including new cash handling equipment from Glory. We have invested in the latest technologies and taken the opportunity to re-engineer our processes. I believe we now have the most efficient cash processing operation in the country.”

These words are spoken by the manager in charge of this Eurozone city-centre cash operation. The bank was faced with a situation where they were operating at near-capacity and were turning away additional business as a result. Once the decision was taken to invest in new processes and equipment, productivity has risen by 150% in two years and has freed up extra capacity. This has given the bank the ability to grow externally-sourced business by 250%.

The cash centre carries out daily processes that are common to cash operations the world over. They use banknote sorters to identify, authenticate, count and collate banknotes into batches of the same denomination. They use the same machines to determine those notes that are fit for recirculation and those that are classed as unfit and should be returned to the central bank. These notes have holes, tears and graffiti, or are just too worn and dirty to meet the standards set by the central bank. Recirculated, fit banknotes make their way back to the general public: distributed via ATM networks, retail stores or by transactions at the bank branches.

Banknote sorters have multiple output pockets to receive the different denominations and to separate banknotes into fitness categories. As the banknotes are transported to the output pockets they are counted into batches so that they can be banded into, typically, packs of 100 notes. It’s a convenient way of handling and checking banknotes in volume, and it’s usually how notes are issued to branch tellers. It is also how unfit notes are normally returned to the central bank. This cash centre was not unusual in that the banding of notes was a manual process. The banknote sorter was used to count the notes into batches of 100 and these were collected by an operator to be placed within a paper band.
The bank faced a number of challenges and realised that change was necessary. Demands on its cash centre were increasing as new retail customers drove an increase in volumes. Its existing sorters were unproductive, often breaking down as a result of note jams.

Working together, Glory and the bank design a new way of working to accommodate this increased workload and support the growth that the bank anticipated in the years ahead.

“The improvements at the cash centre were not achieved in one step. Instead a phased approach was adopted, allowing the cash centre to continue to function at minimal risk to day-to-day operations. The first step was to install a Glory UW-600 8-pocket sorter to replace an older, obsolete sorter that had previously been in place. The UW-600 gives a high level of authentication capability at speeds of up to 720 notes per minute. Most importantly it has demonstrated its outstanding ability to process even the poorest quality notes, with a level of reliability that exceeds that of the equipment it replaced. The machine has been serviced on a two-weekly cycle by the bank’s operators, and in the first 12 months of operation just one on-site visit by a service technician was required. To date more than €1bn worth of notes have been processed on the UW-600, and its success has led to the next phase of the project.”

With confidence growing after the success of the UW-600, Glory worked with the customer to improve other aspects of the operation.”
THE SOLUTION

Following the success of the UW-600, Glory worked with the customer to improve other aspects of the operation; in particular the labour-intensive production of 100 note straps.

The UWH-1000 builds on the same design as the original UW series and adds on-line banding. This gives an additional three pockets that can deliver straps of 100 notes in up to three different denominations. As it is based on an existing design the UWH-1000 brings proven reliability and speed, and crucially it is one of the few mid-range sorters to offer automatic banding, a feature only previously available on more expensive high-speed machines.

It was decided that two UWH-1000 sorters would meet the current demands of the cash centre, and would give additional capacity to grow business in the future.
Compact and quiet – The UWH-1000 is a very compact sorter. It is designed for use in a normal office environment, being very quiet and using a standard power supply.

Automated banding – The UWH-1000 has four 500-note capacity stacking pockets and three additional pockets in the banding unit. When the count in a pocket reaches the batch limit (typically 100 notes) a mechanism transfers the notes into a bander, allowing batch counting to continue without affecting throughput.

Band printing and sealing – The UWH-1000 prints a detailed identification record onto each band. It can also add an authorisation stamp. This means that each machine banded bundle can be traced back to its creation for audit purposes.

The UWH-1000 heat-seals the band to create a tabless joint just like those used manually and the band has exceptional neatness and consistency.

Operator display panel – The UWH-1000 is fitted with a colour flat-screen monitor which displays processing information and operational guidance. If there is a note jam, or if a new roll of bander tape needs to be fitted, the operational steps are displayed using colour pictures and video animation. This contributes to simplicity of operational training and use.
Single person operation
As a consequence of the UHW-1000’s small footprint and the output design of the bander the machine could be completely operated by only one member of staff, whereas it previously took two staff to perform the same operation – one to operate the sorter and deal with rejects, and one to band the banknotes.

Fast return on investment
The increased productivity has enabled the bank to recoup its investment in less than 2 years.

Increased throughput, increased productivity
The automatic banding of the UWH-1000 means that the sorter can be operated with only one person and the throughput rate achieved is 40,000 notes per hour. This contrasts with just 20,000 notes per hour with the older equipment, with a two person operation.

Overall throughput has increased from €15 million to €35 million per day using the three Glory sorters – enabling the bank to cope with its growth in business.

Footnote: For reasons of confidentiality and security many details about the bank’s cash centre operations have been omitted from this case study. However, the bank is willing to share further information with industry professionals, given security clearance. Please contact your Glory representative to be referred to the bank.