# PaperCut | PaperCut 3rd Party Hardware Payments Tour

*PaperCut 3<sup>rd</sup> Party Hardware Payments* allows users to pay for print jobs and/or recharge their print balance via supported 3<sup>rd</sup> party hardware including cash acceptors and card readers. This is made possible by taking advantage of:

- The PaperCut release station software.
- Commodity PC hardware.
- Specialty payment hardware, such as USB or serial based bill/note and coin acceptors, coin change return systems and card reader terminals.
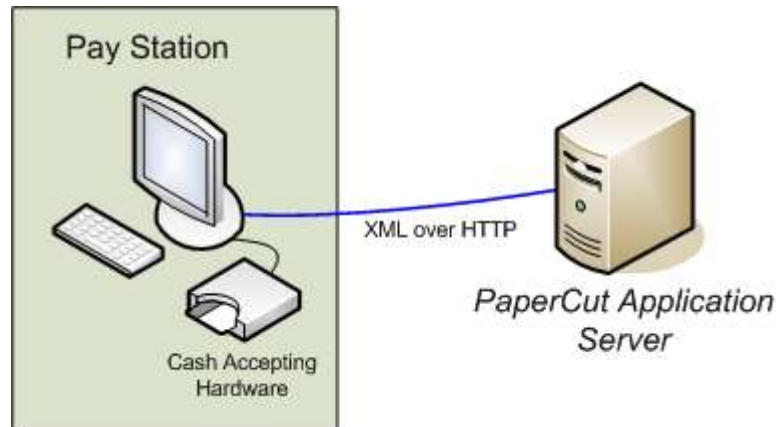


**The PaperCut release station software running on a system with a metal lock box case and Microcoin note and coin readers**

## Contents

# 1  Overview and Architecture

The *release station* is full-screen PC software that runs on a dedicated workstation with the 3rd party hardware attached.  After logging into the system using their existing network logins users may deposit cash into their print account and/or pay for releasing print jobs.  This enables a simple, unattended and easy to manage cash payment system.



**Simple Architecture: a pay station connects to the PaperCut application server**

When the station is configured to accept payments only it is termed a pay station.  The station may also be run as a print job release station with payments enabled.

# 2  Why PaperCut 3rd Party Hardware Payments?

Unlike all-in-one kiosk based solutions, a PaperCut hardware payment system is low cost, simple and runs on commodity hardware.  This makes it an ideal solution for schools, universities/colleges and libraries.

PaperCut's pay station software is designed to be vendor and hardware neutral, capable of supporting many different kinds of hardware cash or card readers.  The API is publicly available for vendors to develop certified integration with new devices.

# 3  Hardware Requirements

Preparing a hardware payments system generally requires:

- A computer with a screen,
- an input device such as mouse & keyboard or touchscreen,
- supported cash accepting hardware,
- if using cash accepting hardware, a lockbox to house the hardware and cash collected,
- (optionally) a card reader to support card based logins.

See the following sections for more information about hardware requirements.

## 3.1  Computer

Almost any computer can be suitable for running the pay station software, so long as it can run the release station software, make a network connection to the PaperCut server and plug into the payment hardware.  Windows is recommended if USB cash accepting hardware is used due to limited driver availability on other operating systems.

Many thin client systems should also be OK, provided they allow for plugging in the required hardware.

The release station software may be run locally from the computer, directly from a network share, or using the recommended hybrid 'local cache' version, which runs locally but keeps itself updated from a network share.

## 3.2  Cash Accepting Hardware

The hardware payments system has been designed to be vendor neutral and support a wide variety of hardware types.  Several types of cash acceptor and card readers are supported "out of the box", and support for new devices can be added using our vendor API.  For information about the currently supported hardware see the PaperCut MF website or contact a PaperCut MF reseller.

## 3.3 Lockbox for Cash Payments

PaperCut can put you in touch with a number of fabricators who can produce a metal lockbox to house cash accepting hardware, or your hardware supplier may have one they recommend.

Alternatively you may prefer to source a local fabricator to produce a lockbox to suit the chosen hardware or other requirements.

The picture below is a prefabricated metal lockbox to house Microcoin devices (the GBA ST1 note/bill reader, QL coin validator or both). It additionally has a mount for an LCD monitor.



**Metal lockbox for Microcoin devices**

## 3.4 Card Reader

Any card reader that plugs into a computer (e.g. via USB) and functions as a generic input device can be used.

# 4  Usage Examples and Screenshots

The following examples illustrate:

- how a user can use the *PaperCut pay station* to recharge their print balance using cash,
- how cash can be collected from devices and reconciled, and
- how an administrator can oversee the functionality.

## 4.1  User Perspective – Paying Cash to Recharge Print Balance

Mary wants to print a document but has used all her allocated printing quota.  She will need to add some more.

Mary logs into the PaperCut pay station – software running on a computer in a common area such as the library.
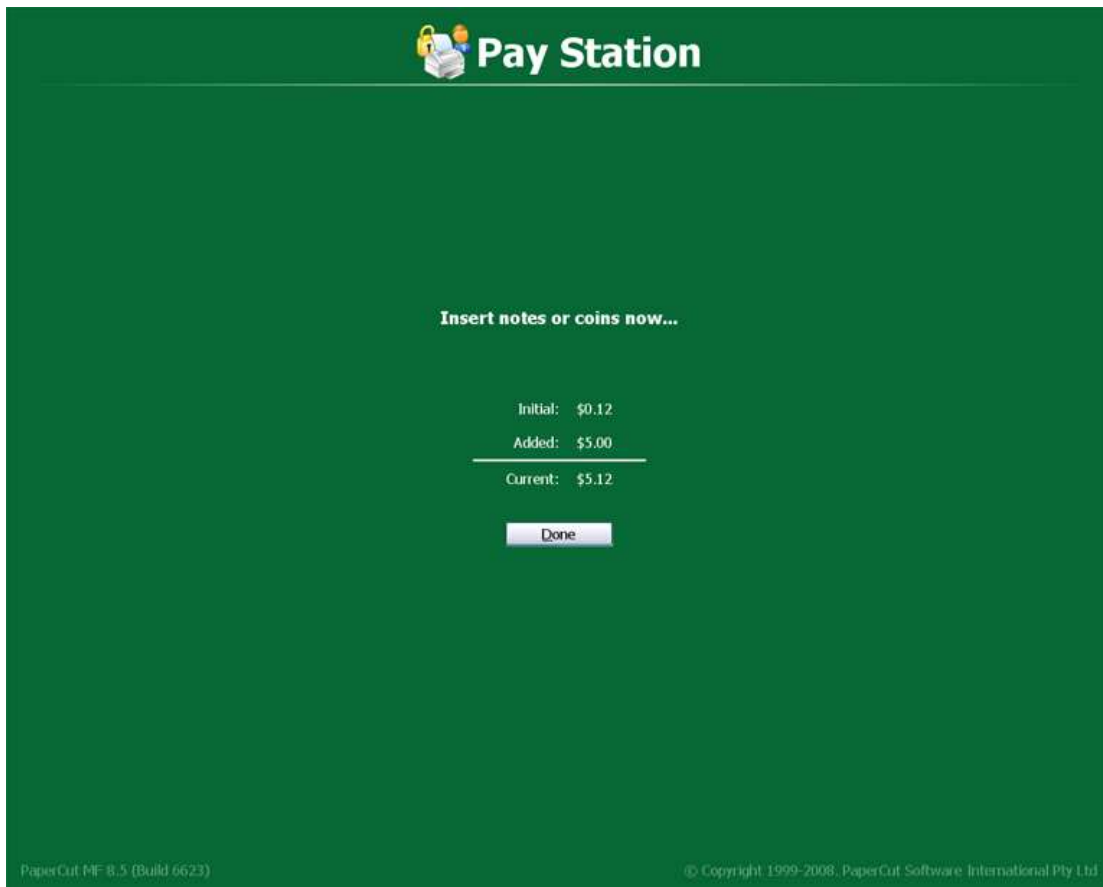
Mary then inserts a $5 bill/note into the hardware bill/note acceptor unit alongside the pay station.



The pay station confirms that Mary has recharged $5 to her account, and she returns to her workstation to print her document immediately.

## 4.2  Manager Perspective – Collecting and Reconciling Cash

As for a cash register or vending machine, cash must be periodically collected from a hardware cash accepting device and reconciled.  That is, the amount of cash collected from the device is compared against the amount that PaperCut reports was added to user account balances.

A separate document is available with a full recommended cash collection procedure, which is in general similar to standard collection procedures for cash registers.

After collecting cash from the device, the collector may run a *Cash Reconciliation Report* to document the amount of cash collected for sign-off by a supervisor/manager.

**Cash Reconciliation Report (pay-station-library)**

For the period of Oct 7, 2008 12:00:00 AM
to Nov 6, 2008 11:59:59 PM.

| | | | |
|---|---|---|---|
| Device Name | pay-station-library | Collected By | |
| Location / Department | Library | Date of Collection | |
| No. of Transactions | 1 | Time of Collection | |
| Net | $5.00 | Amount Collected | |
| | | Overs / Unders | |
| | | Comments | |
| | | Approved By | |
| | | Comments | |

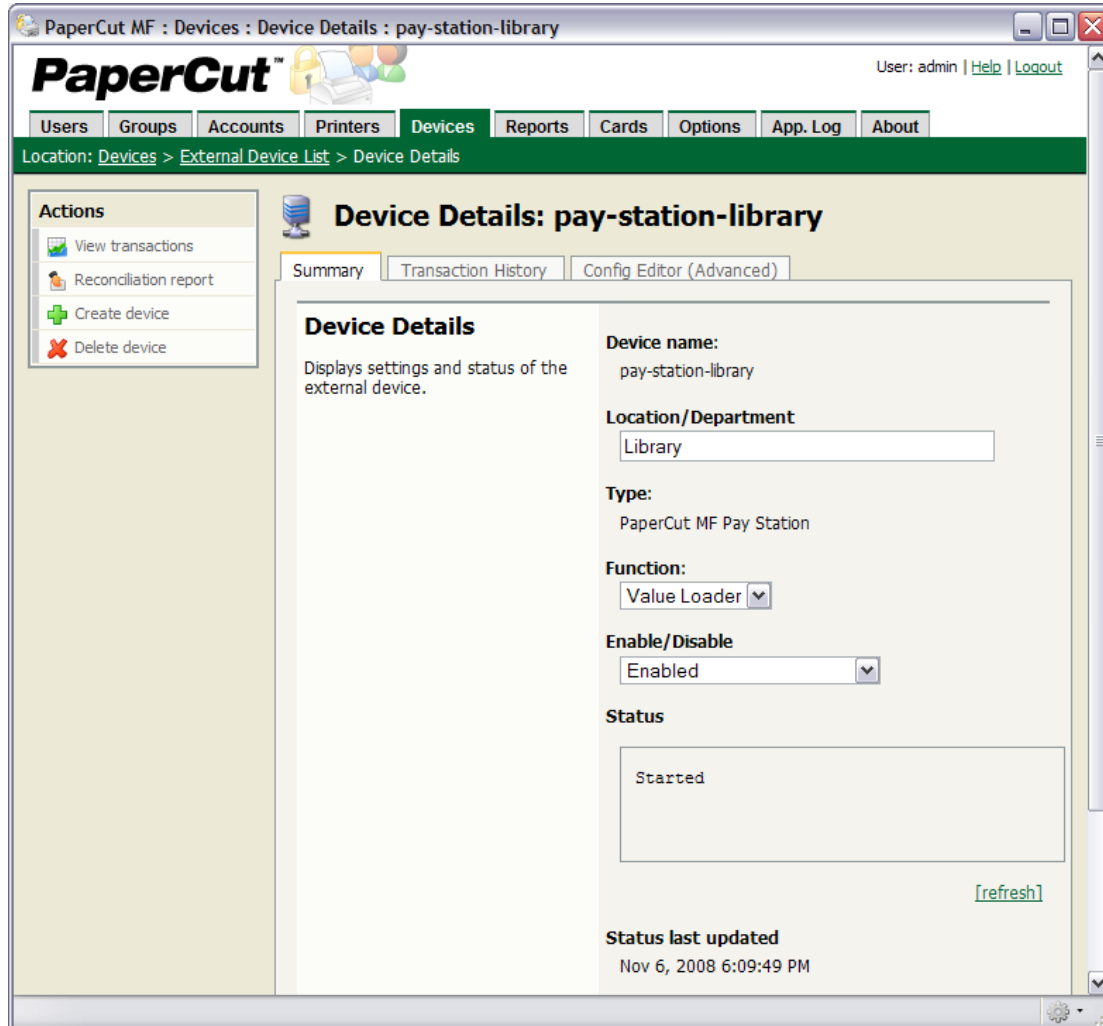Run by: admin                     PaperCut MF - 8.5 (Build 6641)                     Date: Nov 6, 2008 6:11:02 PM
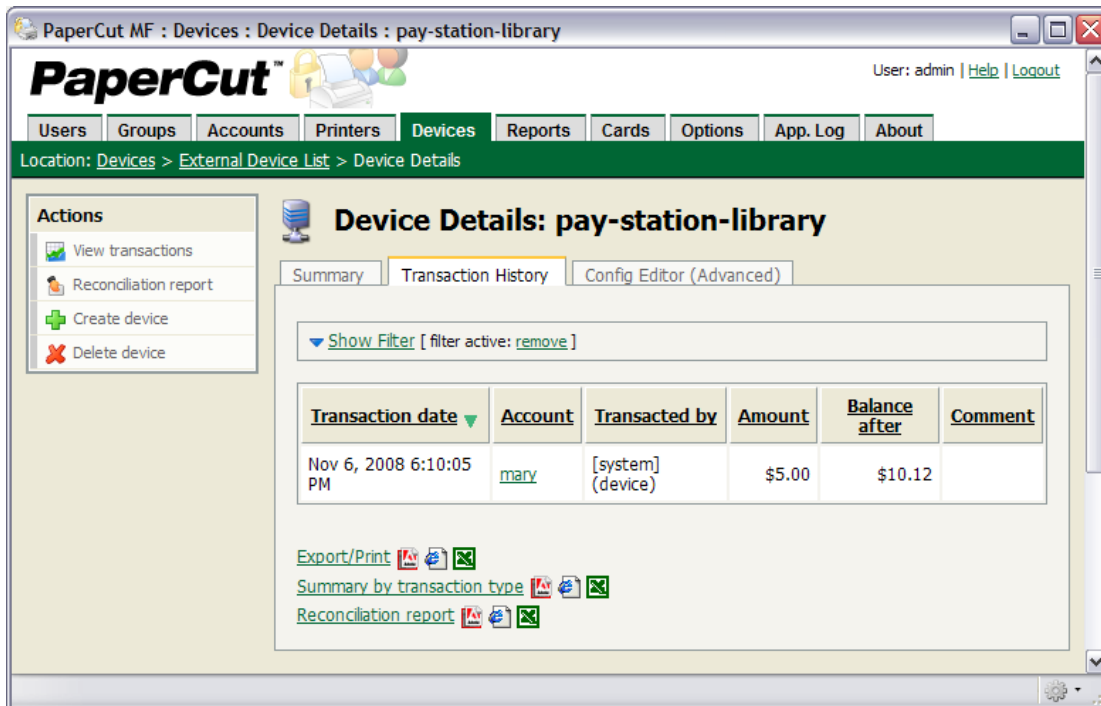
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## 4.3 Administrator Perspective – Overseeing Functionality

The network administrator is able to track and manage a pay station just like other devices, printers and MFPs – via PaperCut's intuitive web based administration interface.

Via the administration interface an administrator can access the pay station status and details,

transaction history and reports,



and other functionality.

The administrator is also able to customize various text and headings in the pay station including instructions provided to users, as well as the colors and logos.

# 5 Other Payment Methods

A release/pay station is the way to implement unattended cash payments into PaperCut. Other payment methods and options include:

- Top-up / pre-paid cards – print and vend your own single-use cards.
- The Payment Gateway Module – to accept credit/bank card payments, integrate with 3$^{rd}$ party payment systems or to implement custom solutions.
- Managing manual payments, e.g. taking payment using existing methods and making the adjustment in PaperCut.

Ask your PaperCut MF reseller or see the website for details.