

# Milan / Paylink Firmware Version 4.1.12.14 Release Notice

This is a **Full** (4) release of the Milan / Paylink Interface firmware - code version **1.12.14**. The release has a few improvements over 4.1.12.13 but does clear a very significant bug introduced in 4.1.12.13 – see below.

Given that this is a *replacement* for 4.1.12.13, his release note covers the differences from **4.1.12.12**, people upgrading from earlier versions should read the appropriate release notes for 3.1.12.3, 4.1.12.4, 4.1.12.6, 4.1.12.7, 4.1.12.8, 4.1.12.9, 4.1.12.10, 4.1.12.11, 4.1.12.12.

## **Major bug fixed from 4.1.12.13**

A minor update to the central infrastructure of the Paylink code introduced a *major* fault: Release 4.1.12.13 loses the ability to update the routing for *all* note recyclers. When working correctly, this routing control is used to direct the recycler to stack notes either to the cash box or recycler unit.

## **Significant General Improvements**

### **MDB Cashless Crediting**

The Paylink API has been extended in the area of Cashless processing to add a function *CashlessPayCredit()* which allows for transferring credit from the Application to the MDB credit system.

The MDB Cashless handler has been correspondingly updated to use the Revalue and/or Negative Vend Request facilities of an MDB Cashless peripheral (if they are reported as being supported).

### **MDB Cashless Processing**

The Paylink API has a *CurrentState* which tracks the internal state of the cashless device. The final state at the end of a transaction is important to an application, but is very transient so far as the device is concerned.

Earlier versions could update these final states due to activity from the unit, which meant that the application could miss them. The latest handler “freezes” these states until a *CashlessReset()* call is issued.

This could theoretically mean that an application which didn’t issue this call after a fault condition could now hang as the *CurrentState* no longer changes due to external events.

### **Paylink Log**

To aid user fault finding, a new function *InjectLogMessage()* allows free text to be added to the Paylink system log by the Application.

## **Minor bugs fixed from all earlier releases**

The following significant bugs were present in the release version of 4.1.12.12 and earlier versions of Paylink

- The **MDB Cashless** handler did not follow the correct initialisation sequence. As a result *some* MDB cashless devices will reset when Paylink attempts to start normal running.
- Paylink auto-detects the encryption requirements of **cctalk** hoppers, but the **Suzo SUH1-USE\_SERNR** version was mishandled by Paylink
- A timing problem with the handler for the **Innovative Spectral** caused Paylink hang, flooding the log with “NAK for recycle count, retrying” messages.
- On an **SCR Recycler**, requesting a dump of an empty Drum did not work
- The **CCNET B2B 300** can report statuses in a previously unseen order, which confuses Paylink when running in Multi Note escrow mode
- Payouts on an Innovative SmartHopper could fail due to a timing window
- The Paylink watchdog processing (via *CheckInterface*) has improved diagnostics to help the setup of reasonable values.
- A housekeeping change in 4.1.12.11 (not earlier) meant that the routing of coins for an **MDB Changer** was not reported correctly
- Error handling for the JCM iPro recycler has been improved

- Earlier releases of Paylink have a bug whereby; if the shared data segment is deleted, (caused by all applications and the driver exiting) the value returned by EscrowThroughput() will be non-zero at startup but will change to zero when EnableInterface() is called. The value will now remain the same (non-zero) after EnableInterface() is called
- The file HidLinux.cpp (only used on Linux systems) fails to compile with the latest compiler
- An exotic bug in the firmware loader program, where it would not run in administrator mode
- An exotic bug in memory alignment after a driver restart was fixed