



# **Aardvark Embedded Solutions**

## **PayLink Java User Guide**

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## Table of Contents

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|          |                               |          |
|----------|-------------------------------|----------|
| <b>1</b> | <b>Introduction .....</b>     | <b>2</b> |
| 1.1      | User .....                    | 2        |
| 1.2      | Requirements .....            | 2        |
| <b>2</b> | <b>Contents .....</b>         | <b>2</b> |
| 2.1      | Basics .....                  | 2        |
| 2.2      | Demonstration Program. ....   | 3        |
| 2.2.1    | Running the Application ..... | 3        |

# 1 Introduction

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## 1.1 User

It is assumed that the reader is a reasonably experienced Java programmer.

## 1.2 Requirements

This application is compatible with versions 1.12 or lower of the Paylink firmware.

The Java (JNI) interface is available in both Windows (.dll) and Linux (.so) version.

The components are:

- AesImheiJava.jar
- AesImheiJava.dll - for Windows
- AesImheiJava.so.1.2.0 - installed in /usr/local/lib by the Linux installation.

To form a functioning system you also require the standard Paylink items:

- The AES Windows USB Driver Application (file AESWDriver.exe found in the Distribution folder)
- For Windows, the Application Interface dll at version 1.5.10 or later. (file Aesimhei.dll found in the Distribution folder)
- For Linux, the Application Interface so at version 1.2.0 or later. (installed in /usr/local/lib by the Linux installation)

# 2 Contents

## 2.1 Basics

The SDKJava folder on the distribution contains three source elements:

- AesImheiJava.java, the source of the Java side of the interface,
- AesImheiJava.cpp, the source of the native side of the interface
- Tester.java, a very simple test harness, calling all the more complex interface functions.

To run the Tester program, the basic AesImhei.dll/.so interface needs to be available (in system32, on the path, or in the local directory) and the USB Driver Application needs to be running. Checking the

Output Window of the USB Driver Application lets you make sure that it has detected the Paylink device.

If you wish to skip the Tester program the only part of these that you *require* is the class library AeslmheiJava.jar and AeslmheiJava.dll/.so

This class library contains the class which is a direct copy of the classes (structures) and methods (functions) given in the main Milan / Paylink User Manual. This means that the *style* of the interface is that of a classic 'C', rather than being object oriented as is usual in Java. In particular, the overall class, AeslmheiJava, only contains static methods and constant properties with no variable properties, while the sub classes defined within AeslmheiJava only contain public accessible properties with no defined methods.

If you need to re-compile this for compatibility with your development environment, the complete source is in the SDKJava folder.

## **2.2 Tester Program.**

The Tester.java test harness is a very simple command prompt program that makes a single pass through a number of interface functions, printing out the results, before pausing at the end, just before exiting.

The solution should build without errors and will run without errors provided the interface jar class library AeslmheiJava.jar, AeslmheiJava.dll/.so and basic Aeslmhei.dll interface are available, and the USB Driver Application is running. If the USB Application is not running or is running but cannot detect a Paylink device, the error 'MHE Open Error 31' occurs at Startup.

### **2.2.1 Running the Test Application**

The provided files Test.bat for Windows and test.sh for Linux should compile and run the Tester program. They expect that the AeslmheiJava.jar is in the folder from which they are run.