



**INFORM : PROTECT : DEPLOY**

# **Reactec Analytics Platform**

## **Swipe Card Programming Guide**

This document provides information about programming and printing Swipe Cards.

**Document Date: 14 July 2016**

**Document Version: 290-102-3**

## **COPYRIGHT AND PROPRIETARY INFORMATION**

Copyright © 2014 Reactec. All Rights Reserved.

This manual is protected by national and international copyright and other laws. Unauthorised storage, reproduction, transmission and/or distribution of this manual, or any part of it, may result in civil and/or criminal proceedings.

## **TRADEMARKS**

Other product and company names in these materials may be trademarks or registered trademarks of other companies, and are the property of their respective owners. They are used only for explanation and to the respective owners' benefit, without intent to infringe.

## **ADDRESS**

Reactec Ltd.  
Vantage Point,  
3 Cultins Road,  
Edinburgh,  
EH11 4DF

## About this document

This document is supplied as a part of the Reactec Analytics Platform.

**Intended Purpose** This document provides information about programming and printing Swipe Cards.

**Intended Audience** This document is intended for staff required to program and print Swipe Cards.

**Conventions used** This guide uses the following formats for safety notices:



---

*Indicates a hazardous situation which, if not avoided, could result in death or serious injury.*

---



---

*Indicates a hazardous situation which, if not avoided, could result in moderate injury, damage the product, or lead to loss of data.*

---

**Notice**

---

*Indicates a hazardous situation which, if not avoided, may seriously impair operations.*

---



---

*Additional information relating to the current section.*

---

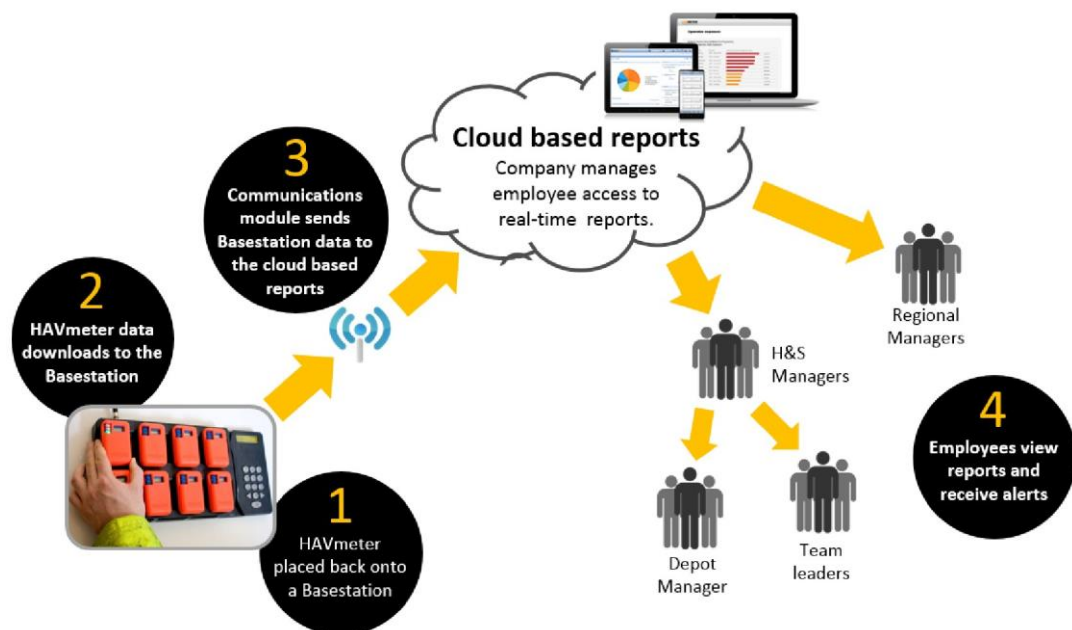
# Contents

<b>About this document</b> .....	<b>iii</b>
<b>Contents</b> .....	<b>iv</b>
<b>1 Reactec Analytics Platform</b> .....	<b>1</b>
1.1 Vibration regulations.....	1
<b>2 Swipe Cards</b> .....	<b>3</b>
2.1 Programming a Swipe Card.....	3
2.1.1 Prerequisites for programming a Swipe Card.....	3
2.1.2 Enter the employee information in the Swipe Card spreadsheet.....	4
2.1.3 Program and print a Swipe Card.....	4
<b>3 Troubleshooting</b> .....	<b>6</b>
3.1 Contacting Reactec support.....	6

# 1 Reactec Analytics Platform

The Reactec Analytics Platform is a group of hardware and software components which allow the collection, organisation and analysis of HAV (Hand Arm Vibration) risk assessment exposure data relating to the use of vibrating equipment. Reactec Analytics Platform comprises the following components:

- HAVmeter Tool Tags
- Magnetic Swipe Cards
- HAVmeters
- Basestation
- Smartcharger
- Communications Module
- Analytics Software



**Figure 1: RAP data flow**

HAV risk assessment exposure data is calculated and collected during tool use by the HAVmeters. Operators are informed of their HAV exposure by the LED display and indicator lights on the HAVmeter. At the end of each shift the operators return the HAVmeter to the Basestation which collects the HAV exposure data.

The HAV risk assessment exposure data is transmitted by the Communications Module to the Analytics Software where it can be analysed. The Analytics Software allows organisations to monitor HAV risk assessment exposure levels and trends, so enabling them to implement effective control measures.

## 1.1 Vibration regulations

The traffic light systems employed in the Reactec Analytics Platform for the HAVmeter indicator lights are related to the HSE Control of Vibration at Work Regulations 2005 (the Vibration Regulations).

1 Reactec Analytics Platform

The Vibration Regulations include an exposure action value (EAV) and an exposure limit value (ELV) based on a combination of the vibration at the grip point(s) on vibrating equipment and the time spent using it.

- **EAV** - daily exposure to vibrations of 2.5 m/s<sup>2</sup> over 8 hours that represents a clear risk requiring management  
Equivalent to 100 points
- **ELV** - daily exposure to vibrations of 5 m/s<sup>2</sup> over 8 hours that represents a high risk above which employees should not be exposed  
Equivalent to 400 points

---

**Notice** *Individual operators may have modified EAV and ELV values based on their risk factors or historical vibration exposure. Organisations may also use alternative values to suit their policies.*

---

The HAVmeter calculates and records the HAV exposure caused by operating the tool. The HAVmeter display shows the number of points the operator has accumulated during a shift as they work with vibrating tools. In addition, the 3 colour-coded indicator lights on the HAVmeter show the operator's HAV exposure relative to their EAV and ELV .

**Table 2 HAVmeter indicator lights**

<b>GREEN</b>	GO	Below EAV. Aim to stay in this region.
<b>AMBER</b>	BE AWARE	EAV exceeded. Reduce tool usage, share workload – supervisors on alert.
<b>RED</b>	STOP	ELV exceeded. Stop using hand-held power tools.

## 2 Swipe Cards

Swipe Cards are cards provided to each operator to uniquely identify them in the Reactec Analytics Platform.



**Figure 2: Swipe Card**

Operators use their Swipe Card to sign out a HAVmeter at the start of a shift. This identifies the operator with the HAVmeter ensuring the correct exposure action value (EAV) and exposure limit value (ELV) data is used.

Each operator must have their own Swipe Card programmed with individual information.

► For more information, see "Programming a Swipe Card" on page 3

### 2.1 Programming a Swipe Card

Each operator must have their own Swipe Card programmed with individual information. When an employee is required to use a HAVmeter, you must provide a Swipe Card for them.

Reactec provide a service to program Swipe Cards. To use this service, you will need to provide the following information:

- Name of the employee (operator)
- The employee's Exposure Action Value (EAV) and Exposure Limit Value (ELV)
- Employee ID number  
This is a unique number used to identify the employee within your organisation to the Reactec Analytics Platform.  
If no ID number is provided, Reactec will assign one.
- Company logo  
To be printed on the card.

Alternatively, you can program your own Swipe Cards.

#### 2.1.1 Prerequisites for programming a Swipe Card

Ensure you have the following before programming a Swipe Card:

- Emedia software and template installed on a PC  
The template is a basic outline for a card. You can modify the template to suit your organisation's requirements, but you must keep the coded areas the same.
- Card printer (either Pebble4 or Primacy)
- Swipe Card with magnetic strip
- Swipe Card spread sheet

2 Swipe Cards

- Company logo (optional)

You need to enter this information into the Swipe Card spreadsheet before you can program the card.

### 2.1.2 Enter the employee information in the Swipe Card spreadsheet

Before programming a card, ensure you have the following information:

- Name of the employee (operator)



*The Employee Name is entered as a single field in the Swipe Card spreadsheet. Reactec recommends entering the name in the following format: Lastname Firstname.*

- The employee's Exposure Action Value (EAV) and Exposure Limit Value (ELV)
  - ▶ For more information about EAV and ELV, see "Vibration regulations" on page 1
- Employee ID number.

This is a unique number used to identify the employee within your organisation to the Reactec Analytics Platform.

You will need to enter this information into the Swipe Card spreadsheet before you can program the card.

1. Open the Swipe Card spreadsheet.  
If this is the first time your organisation has programmed a Swipe Card, use the Swipe Card spreadsheet template provided by Reactec.
2. Enter the employee information into the spreadsheet.  
The **Ban Bits** should be 0000 for each employee.
3. Select the columns for Employee Name, Card Number, Employee ID and Ban Bits, and all the rows of employee information.

**Swipe Card Programming: Employee Details**

Employee Name	Card Number	Employee Identification Number	Ban Bits	EAV (ie, 100)	ELV (ie, 400)
S ROBINSON	01	250779	0000	100	400
I MARR	02	250974	0000	100	400
G DONALDSON	03	257062	0000	100	400
T O'CONNELL	04	253204	0000	100	400

**Figure 3: Example of Swipe Card spreadsheet**

4. Specify a name for this Data Table.
5. Save the spreadsheet to a convenient location.

### 2.1.3 Program and print a Swipe Card

The Emedia software reads the employee data from the Swipe Card spreadsheet with the exception of the EAV and ELV. You can add these values as part of this process if necessary.


In addition, you can customise the look of the Swipe Card before printing.

1. Open the Emedia template supplied by Reactec. The Emedia software opens.
2. Switch the mode toggle to Design to enter the Design mode.





**Figure 4: Emedia software Mode Toggle**

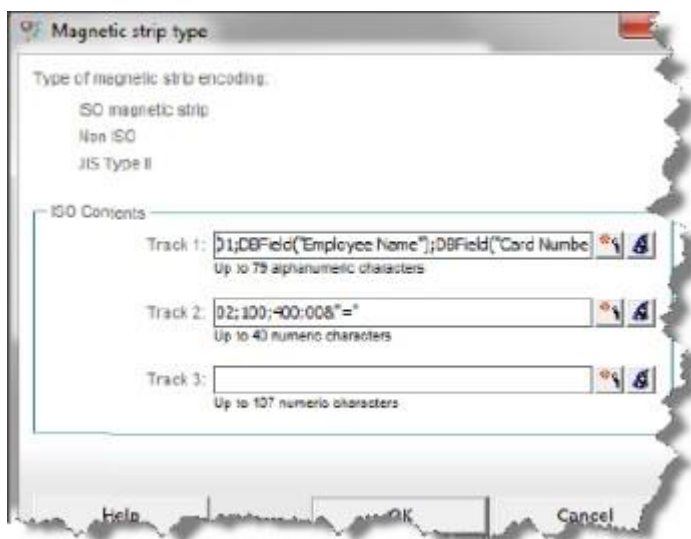
3. Click **Tools > Connect to database**. The Database Connection wizard opens. Click **Next**.
4. Select the Swipe Card spreadsheet you saved in step 5 of 2.1.2 "Enter the employee information in the Swipe Card spreadsheet"
5. Select the name of the Data Table you specified in step 4
6. Click **Next** until you reach the wizard, then click **Finish**.
7. If you wish to add a logo to the Swipe Card, click  in the **Toolbox** and select a logo file.
8. Confirm that the EAV and ELV are correct for the employee. The default values are those used for the previous employee.

If you need to change the EAV or ELV, click  in the **Toolbox**. In the **Magnetic strip type** dialog, update Track 2 with the new EAV and ELV.

Enter the values in the following format:

02;100;400;00&"="

where 100 is the EAV and 400 is the ELV.



**Figure 5: Emedia software Magnetic strip type dialog**

9. Switch the mode toggle back to Print to enter the Print mode.
10. Use the navigation keys to select the card for the new employee, and click **Print**.

## 3 Troubleshooting

This section provides information about troubleshooting issues that may arise.

### 3.1 Contacting Reactec support

Contact Reactec support with any issues using one of the following options:

**Tel:** +44 (0) 131 221 0920

**Email:** [helpdesk@reactec.com](mailto:helpdesk@reactec.com)

**Website:** [www.reactec.com/helpdesk](http://www.reactec.com/helpdesk)