# Reactec

# Tool Tag Manager Guide

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**About this document**

This document is supplied as a part of the Reactec Eco-System.

**Intended purpose**

This document is intended to provide information about using Tool Tag Manager with the Reactec Eco-System.

**Intended audience**

This document is intended for all users of the Reactec Eco-System.

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**Original instructions**

**Read this document before using the equipment**

**Retain this document for future use**

## Document information

## Copyright and proprietary information

## Trademarks

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**Conventions used**

This guide uses the following formats for safety notices.

⚠ **WARNING**

Provides important information to prevent serious problems, for example, the loss of data.

⚠ **Caution**

Provides important information to prevent serious problems, for example, the loss of data.

💡 **Information**

Provides additional information.

✓ **Tip**

Provides useful hints and tips.

# Contents

# 1 Tool tags

Tool tags are small, robust components which are attached to all monitored vibrating equipment.

Tool tags are programmed with tool specific data which is read by Reactec communication devices using RFID or Bluetooth communication.

Additionally, customers may choose to display some information externally on the tool tag.

► *For more information, refer to the Hardware Overview.*

## 1.1 RFID tool tags



Figure 1 - Figure 1: RFID Tool tags

## 1.2 Bluetooth tool tag



Figure 2 - Figure 1: Bluetooth tool tag

## 1.3    SAFE-ZONE tags

SAFE- ZONE tags look similar to tool tags but with different external markings and intended for a very different application.



Figure 3 - Figure 2: SAFE-ZONE Tag

SAFE-ZONE tags contain information that enables the proximity detection of an R-LINK or HAVwear watch to be switched off. This is intended for situations were an individual is physically protected but may be able to detect signals from other devices which are in proximity.

The SAFE-ZONE tag is programmed with the following information:

- The zone type – open or enclosed (see below)
- The name of the location of the tag (up to 32 characters)
- The number of minutes after which the operator will be automatically tagged out of the Safe Zone, defaults to 10 minutes, can be set to zero if no timeout is required.
- Optionally the latitude and longitude of the location of the tag

Ultimately customers will be responsible for deciding if any information is to be displayed on the SAFE-ZONE tag.

## 1.4    Prerequisites for programming a tag using the RFID read/writer

The following equipment and facilities will be required to enable the programming of tags using the RFID read/writer:

- A tablet or a PC running Windows 7/8 (32/64 bit) operating system
- RFID read/writer

- A working internet connection to allow the download of the required drivers and software

- A RFID or Bluetooth Tool Tag or SAFE-ZONE Tag

- A Reactec R-Link watch (for programming Bluetooth tool tags only)

# 1.5 Installing an RFID read/writer

To read and assign RFID cards you need to download and use the ID Card Manager software.

## 1.5.1 Installing hardware

Connect the RFID read/writer, HID Omnikey 5021/5022 CL, to a computer.

## 1.5.2 Installing driver software

The drivers for the HID Omnikey 5021/5022 CL may not need to be installed. If however, the driver does not install automatically, the driver software is available from Reactec Analytics.

1. Log in to Reactec Analytics.

2. In the top right of the home page, select 🔽 .

   The **Download** page opens.

3. Select **Tool Tag Manager**

   The **installation instruction** page opens.

4. To download, select the driver relevant to the operating system installed on your pc then follow the installation instructions.

> ⊘ **Tip**
>
> A white light is visible on the edges of the Omnikey RFID read/writer when the hardware and software have been successfully installed.

# 1.6 Installing Tool Tag Manager

Tool Tag Manager is available from Reactec Analytics.

1. Log in to the Reactec Analytics

2. In the top right of the home page, select ⬇ .

   The **Download** page opens.

3. Download Tool Tag Manager by selecting **Download (49.2MB)** under **Software Download**

4. Open the folder and right click on **setup.exe**

5. Select **Run as administrator**

   The **User Account Control** window opens.

6. Select **Yes** to start the installation

   The installer launches.

7. Follow the onscreen instructions

8. Once the install is complete power down the PC, then power back on

> **Information**
>
> If you have a previous version installed, remove it before installing the latest version

# 1.7 Downloading and populating the tool tag programming template

Before attempting to program tool tags, an Excel template must be populated with the tool information that is required to be programmed on the tool tag.

The Excel template can be downloaded from both Reactec Analytics and the Tool Tag Manager.

## 1.7.1 Downloading the template from Tool Tag Manager

1. Open the Tool Tag Managerapplication

2. Select **Tool Tag Programming Template** from the opening window

3. Select a file name, a destination folder and select **Save**

4. Populate the excel file with the tool information and **Save**

### 1.7.2    Downloading the template from Reactec Analytics

1. On the toolbar, select *Admin Menu*.

2. Select **Tools**

3. Select **Bulk Upload** button

4. Select **Download Template**

   The excel spreadsheet will download and automatically open

5. Populate the excel file with the tool information and **Save**

> ⊘ **Tip**
>
> Sound and weight fields are optional

## 1.8    Uploading the Tool Tag Programming Template

The excel template can be uploaded to the Reactec Analytics or direct to the Tool Tag Manager software.

### 1.8.1    Uploading the template to Tool Tag Manager software

1. Open the **Tool Tag Manager** software

2. Select *Upload*, in the *Bulk Upload* box.

3. Select the **Load** button

4. Locate the saved template file select **open**

   The tools contained in the excel file are now displayed on the page

> 💡 **Information**
>
> If any fields are highlighted with a red box, this means the template is missing information. Thesefields must be populated before continuing. Select the red box and manually add the missing information.

### 1.8.2    Uploading the template to Reactec Analytics

1. On the toolbar, select *Admin Menu*.

2. Select **Tools**

3. Select **Bulk Upload** button

4. Select **Choose file**

5. Locate the saved file and select **Open**

6. If desired, choose a Group to assign the tools to

7. Select **Import**

   The tools contained in the excel file are now displayed on the Tool List page

## 1.9    Programming RFID tool tags

1. Open the **Tool Tag Manager** software

2. Dependant on how you are uploading your tool list, select either the **Upload** or **Download** button

3. Place a tool tag on the RFID card read/writer

4. Select *Write* for a tool tag to upload the data to that tool tag

5. To program another tag, repeat the process.

6. When all the necessary tool tags have been programmed, select *Close* to exit the program

> ⊘ **Tip**
>
> A green tick is displayed in *Tag Status* box when successful connection is confirmed with the tool tag.

## 1.10    Editing individual RFID tool tag details

1. Open the **Tool Tag Manager** software

2. Select *View*, in the *Edit Tag* box.

   The **Tag Status** screen is displayed

3. Place the tool tag that requires updating onto the RFID read/writer

4. To edit any of the details, select the appropriate field and insert the required information into that field

5. Select **Update** to program the tool tag with the updated information

> **Information**
>
> If the RFID read/writer successfully reads the tool tag, the details are displayed on the screen. If the tool tag is blank, an error message is displayed.

## 1.11    Programming Bluetooth tool tags

Bluetooth tool tags are programmed using an RFID tool tag and a Reactec R-Link watch.

To program a Bluetooth tool tag, you will first need to program an RFID tool tag with the relevant tool information. This data is then transferred to the Bluetooth tag using a Reactec R-Link watch.

1. **Sign out** a R-Link watch.

2. Have an RFID tool tag available that has been programmed with the tool information you wish to program into the BLE tool tag. For more information, see "Programming RFID tool tags" on page 10

3. Have available the BLE tool tag to be programmed.

4. Press the left hand button to enter the R-Link watch **menu.**

5. Scroll and select **Program BLE tag.**

   If the **Program BLE Tag** option does not appear in the R-Link watch menu, BLE tag functionality may not be enabled in your Analytics account. *For more information, refer to the Software Administration Guide, section **HAV Options.***

6. Select **Yes** to begin programming.

7. **Present** the R-Link watch to the programmed **RFID tool tag**.

8. **Flip** the BLE tag over to initiate communication and have the watch close by.

9. The watch will display **Programming BLE tag successful** once the process is complete.

> **✓ Tip**
>
> To program additional Bluetooth tool tags, simply repeat the above steps. You may reuse the same RFID tool tag, provided it has been updated with the new tool information.

> **⚠ Caution**
>
> To avoid programming errors, ensure that only one Bluetooth tool tag is within range during the programming process. Having multiple tags nearby may confuse the R-Link watch and result in incorrect data transfer.

> **💡 Information**
>
> To edit/update a Bluetooth tool tag with new tool information, simply repeat the above steps. The R-Link watch will ask to confirm overwriting the existing data.

## 1.12    Vibration level database

Tool tags can be programmed via the vibration level database. This is an online database of tool vibration levels, gathered from data published by the tool manufacturers. Typically the manufacturer's data is generated from laboratory test work and may not represent the vibration levels in the workplace. The values should therefore be used as a guideline only. It is the responsibility of the employer to adhere to legal requirements applicable to workplace health and safety and to determine vibration values that are representative of the actual vibration emissions over time.

Access to the vibration level database is available to customers who have subscribed to the service.

### 1.12.1    Searching for an individual tool

1. Log in to the vibration level database

   https://vldb.reactecanalyticsplatform.com/

2. Select the ***Tools*** tab at the top of the page

3. From the drop down list, select ***Search***

4. Enter the tool information into the following fields:

   - Manufacturer

   - Model

   - Model name

5. If the tool manufacturer is not known, then select ***Any*** from the drop down list. If the model or model name is not known, then leave it blank.

6. Once all the information has been entered, select ***Search***

## 1.12.2   Searching for multiple tools

1. Select the ***Tool*** tab at the top of the page

2. From the drop down list, select ***Export***.

3. Select ***Download the tool import template here***.

4. Open the template, enter the information for each tool and save the file.

5. Go back to the ***Export*** page and select ***Browse***.

6. Select the Excel file that you saved and select ***Upload***.

   The database searches for all of the tools contained within the spreadsheet. Tools within the database will be displayed as ***Matched Entries***. Tools not in the database will be displayed as ***Unmatched Entries***.

## 1.12.3   Programming tags using the vibration level database

1. Within the matched entries, select each tool you require to program a tag for.

2. Select ***Export*** and save the file.

▶ *For more information on programming tags, refer to the Tool Tag Guide.*

# 2    Fitting a tool tag

To fit a tool tag, follow these steps:

1. Locate a flat area approx. 30mm x 30mm on the tool. If not use the largest flat surface available.

   This area has to be easily accessible to allow an operators wrist to be placed over the tag.

2. To obtain optimum adhesion, the bonding surfaces must be clean, dry and well unified. Isopropyl alcohol can be used to clean the surface.

3. Remove the backing from the tool tag and place on prepared area.

4. Apply pressure for 10-20 seconds to the top of the tag to ensure adhesion.

> **Information**
>
> Ideal application range is 21°C to 38°C. Initial application to surfaces at temperatures below 10°C is not recommended fitting tool tags.

# 3    Programming SAFE-ZONE tags

1. Open Tool Tag Manager software.

2. Connect RFID Read/ Writer to the computer.

3. A green tick will be displayed in the RFID Read/ Writer Status box.

4. Select *Edit Tag*.

5. Place a Tag on the RFID card Read/ Writer.

   A green tick is displayed in the *Tag Status*.

6. The SAFE-ZONE tag is programmed with the following information:

   - The Zone Type - Open or Enclosed:

     - When tagged to an **Enclosed** SAFE-ZONE, proximity with another watch or RASOR is not detected and the user is not alerted.

     - When tagged to an **Open** SAFE-ZONE, proximity with another watch or RASOR is not detected and the user is not alerted if they are also tagged into a SAFE-ZONE.

       If the approaching individual has not been tagged into any type of SAFE ZONE their proximity will be detected and the user will be alerted.

   - The name of the Location of the tag (up to 32 characters).

   - The number of Minutes after which the operator will be automatically tagged out of the Safe Zone (defaults to 10 minutes, can be set to zero if no timeout is required).

   - Optionally, the latitude and longitude of the location of the tag. (If these fields are completed, then a map icon will be displayed in Reactec Analytics, a map icon will be displayed to allow the user to view the location of the Tag on Google Maps.

7. To upload the data to the Tag, select *Update*.

8. To program another Tag, remove the previously programmed Tag and place new one on the RFID Read/Writer.

9. Select *Close* .

**Information**

Within Reactec Analytics, SAFE-ZONE tags can be viewed and a sub set of attributes can be managed. SAFE-ZONES are automatically shown in Reactec Analytics after they are first used by a watch user.