



DATREND
Systems Inc.

vPad-PM TagTM

Label Printing Utility for vPad Devices

App Version 1.10.X

Operating Manual

vPad-PM TagTM
Label Printing Utility
for vPad Devices
Operating Manual

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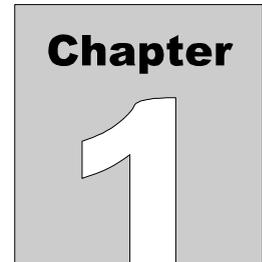
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Table of Contents

TABLE OF CONTENTS	III
1 OVERVIEW	1
1.1 Preventive Maintenance Records and Tags	1
1.2 Label Printers	2
2 INSTALLATION	3
3 OPERATION	5
3.1 Hardware Setup for Label Printing	5
3.2 Record Browser	8
3.3 Record Viewer	9
3.4 Printing a PM Tag	10
3.4.1 Setting a Due Date	11
3.4.2 Troubleshooting	12
4 UPGRADES AND MAINTENANCE	13

vPad-PM Tag OPERATING MANUAL



1 Overview

vPad-PM Tag™ is an accessory software application (App) that can be installed on the vPad™ family of products, including vPad-ES 2™ and vPad Rugged 2™ safety analyzers, the vPad-RF™ ESU analyzer, the vPad-IN™ incubator tester, and other vPad devices. The App may be used to print preventive maintenance (PM) tags or labels from previously-saved Test Records. vPad-PM Tag provides the following functions related to label printing:

- select a Test Record file and view its contents; and
- print a label with facility, equipment, and PM status information

1.1 Preventive Maintenance Records and Tags

vPad products and their associated Apps are capable of saving Test Records on the tablet. These records may document a range of activities related to equipment preventive maintenance (PM), including visual inspections, electrical safety testing and equipment performance testing. Such records may be an outcome of manually-performed tests or they may be created by automated test sequences or inspections.

Once a device has been successfully inspected and/or tested, a PM tag or label is often affixed to the device so that medical staff will know the device is acceptable for use. A typical PM tag will include:

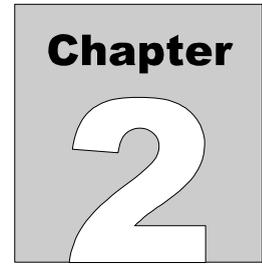
- equipment owner (facility and/or department)
- equipment control or identification number, with optional barcode (printer dependent)
- date of inspection or service
- due date for next inspection or service
- identification code/initials of technician who completed the inspection or test

The above details are contained in the Test Record file which is saved by the vPad app on conclusion of an inspection. Although a PM tag may be printed at the time of the test, vPad-PM Tag allows a previously-saved record to be opened and a tag printed at some later time. This may be more convenient, or it may become necessary if the original tag falls off or is defaced before the next inspection.

1.2 Label Printers

vPad-PM Tag supports label printing through specific printer models provided by Dymo, Brady, Zebra and Brother. Some printers will require a XBUS Smart Cable accessory or "**XSC**" to connect with the vPad safety analyzer. The XSC interface is a bridge between the safety analyzer's XBUS Port and the communication port of the label printer. Other printers are able to communicate directly with the vPad tablet through Bluetooth or WiFi.

Printer selection and setup is accomplished with the *vPad Settings* app , which is provided with vPad safety analyzers, patient simulators and performance analyzers. *vPad Settings* enables you select a printer type; enter a title to be printed at the top of the label; and optionally enable a 2-D or 3-D barcode to be printed on the label, if the selected printer supports such barcodes. For more information on the supported label printers and their setup, refer to *MN-129 vPad Settings Operator's Manual*.



2 Installation

The vPad-PM Tag™ App is normally pre-installed on the vPad tablet, but the icon for the App may not be placed on the Home screen  by default.

Go to the Apps screen by pressing the Apps icon, , which may be found on the favourites task bar at the bottom of the screen, or in the upper right corner of the Home screen (tablet and Android build dependent). Locate the vPad-PM Tag icon, then press and hold the icon for a few seconds. You will be able drag and drop the icon onto the Home screen.

If vPad-PM Tag is not already installed on the tablet, contact your dealer and an installation package for the app will be provided for download.

When the App is started for the first time, the activation screen will be shown. Enter the activation code provided by your dealer to allow the App to run. If activation is cancelled or the code is incorrect, the activation screen will be shown again.

In order to use vPad-PM Tag, you must have at least one vPad testing application or checklist application installed and activated.

vPad-PM Tag OPERATING MANUAL

3 Operation

vPad-PM Tag is an accessory App which may be installed on vPad tablets. The App may be used to print PM inspection labels or tags from test record files saved by other vPad apps, for example: vPad-ES™ (electrical safety analyzer), vPad-IN™ (incubator analyzer), vPad-RF™ (ESU analyzer), and many other vPad products.

3.1 Hardware Setup for Label Printing

The vPad system is compatible with label printer models listed in TABLE 3.1-1, as well as other models which may interface with vPad directly through Bluetooth or WiFi. To interface a label printer listed in TABLE 3.1-1 to the vPad, an XBUS Smart Cable or "**XSC**" interface is required; refer to the table for corresponding Datrend part numbers. XSC adaptors are available for wired or wireless interface to the printer, with the wireless option being capable of both wired and wireless operation.

TABLE 3.1-1: Label Printers Requiring XSC Interface

Printer Make/Model	XSC Interface, Wired (serial only)	XSC Interface, Wireless (Bluetooth & serial)
Dymo LabelWriter SE300 or SE450	7400-100	7400-098
Zebra GC420t	7400-108	7400-107
Brady TLS PC Link	7400-102	7400-101

Figure 1 shows the general setup for a wired connection to a supported label printer through a XSC Smart Cable interface. The figure is a schematic representation and is not drawn to scale. Setup instructions are as follows:

- a. Using the RJ11-6 cable provided with the XSC interface, connect the "XBUS" Port of the vPad Base Unit to either of the "**XBUS**" inputs of the interface. Note that one of the XBUS inputs will remain available to permit daisy-chaining of additional XSC units for remote device interfacing.

vPad-PM Tag OPERATING MANUAL

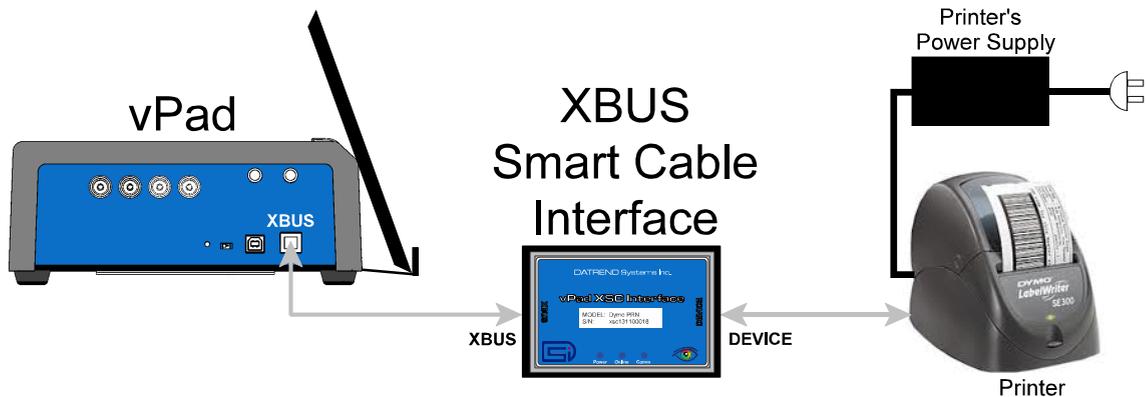


Figure 1 - Schematic showing setup of label printer - wired (serial) interface.

- b. Connect the serial port of the label printer to the "**DEVICE**" output of the XSC interface.
- c. Connect the power supply provided with the printer to the printer's power input.
- d. Apply power to the printer when required. The XSC adaptor receives its power from the vPad Base Unit, through the XBUS connection.

Figure 2 shows the general setup for a wireless connection to a label printer through a XSC Smart Cable that supports wireless communication. The figure is a schematic representation and is not drawn to scale. Communication is based on point-to-point Bluetooth and is possible over distances of up to thirty feet (10 meters).

Wireless setup instructions are as follows:

- a. Using the RJ11-6 cable provided with the XSC interface, connect the "XBUS" Port of the vPad Base Unit to either of the "**XBUS**" inputs of the interface. Note that one of the XBUS inputs will remain available to permit daisy-chaining of additional XSC units for external device interfacing.
- b. Connect the Bluetooth Module provided with the XSC interface to the serial port of the printer. Note this Bluetooth Module has been configured to communicate specifically with its companion XSC interface.
- c. Connect the AC adaptor provided with the XSC interface to the DC power input of the Bluetooth Module, then connect the adaptor to the AC supply.

vPad-PM Tag OPERATING MANUAL

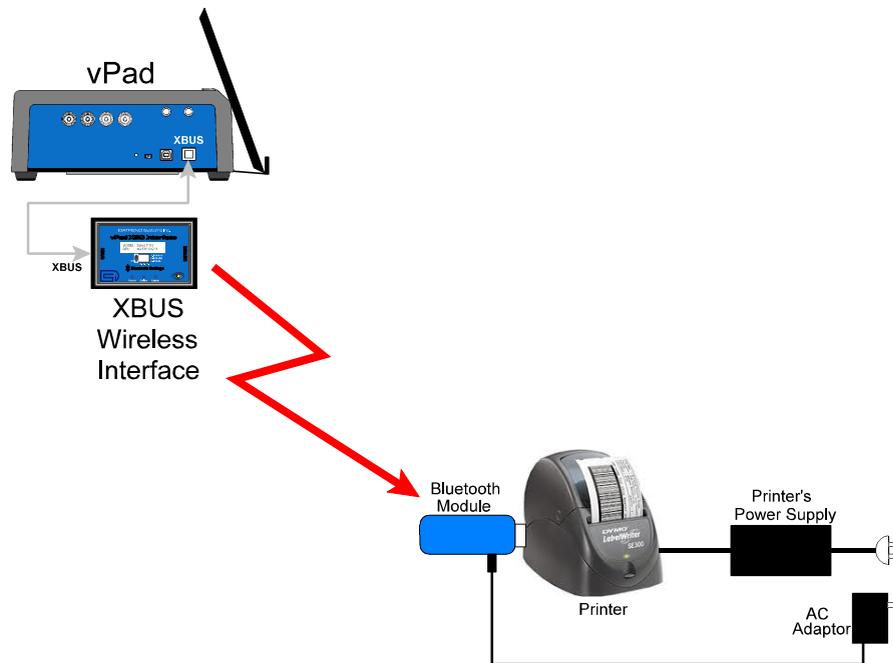


Figure 2 - Schematic showing setup of label printer - wireless (Bluetooth) interface.

- d. Connect the power supply provided with the printer to the printer's power input.
- e. Apply power to the printer when required. The XSC interface receives its power from the vPad Base Unit, through the XBUS connection. When powered, the XSC interface will seek out the Bluetooth Module at the printer, and if the Module is powered up, a point-to-point radio link will be established automatically.
- f. Optionally, a wireless XSC may be switched to wired operation. To do so, disconnect the XSC from the vPad and set the "BTENA" switch of the interface to the "OFF" position. This will disable the Bluetooth connectivity of the XSC. A wired connection to the printer may then be set up as shown in *Figure 1*.

In addition to the label printers identified in TABLE 3.1-1 above, vPad-PM Tag has the ability to print to additional printer models by means of direct communication with the printer through Bluetooth or WiFi.

These alternative printers are selected and set up via the *vPad Settings* app  on the tablet. For more information on printing with these alternative printers, refer to *MN-129 vPad Settings Operator's Manual*.

3.2 Record Browser

Press the vPad-PM Tag icon, , to start the App. vPad-PM Tag will then display its main menu.



Figure 3 - Maintenance record browser.

The main working screen of vPad-PM Tag is the maintenance record browser (*Figure 3*) which is used to select a previously-saved record from the Datrend file system on the tablet. A drop-down menu at top left contains a list of installed vPad applications which create test records¹. Selecting the name of an application will list all maintenance records that were previously saved by the app. For example, *Figure 3* shows a list of records saved by the vPad-Check automation app. As required, scroll the list by dragging it up or down. Select a record for printing by touching its row in the listing. Once selected, a record's content may then be seen with the **'View Data'** button. Alternatively, a PM label for the equipment identified in the record can be generated with the **'Print Label'** button.

List organization may be changed with the **'Sort'** radio buttons near top right. Records can be sorted by:

- date that the record was saved
- equipment control number
- technician code
- equipment manufacturer
- equipment model

¹ Some vPad apps, for example vPad-mT and vPad-EQM, use the vPad-Check app to perform an automated test or inspection; in this case, test records associated with vPad-mT or vPad-EQM will be found in the vPad-Check folder.

vPad-PM Tag OPERATING MANUAL

All records will include, at minimum, a test date, an equipment control number, a technician code, and an overall PASS/FAIL result. Other details, such as equipment manufacturer and model, are optional; they will appear in the record listing only if the corresponding information was entered at the time of test or inspection.

Press the BACK button, , to exit vPad-PM Tag.

3.3 Record Viewer

After selecting a maintenance record with the browser, you may view the record's content by pressing the **'View Data'** button:



Figure 4 - Record viewer.

The displayed information is read-only. Press the BACK button, , to dismiss the viewer and return to the record browser. Alternatively, press **'Print Label'** to generate a PM label for the equipment specified in the displayed record.

3.4 Printing a PM Tag

Once a record has been selected, from either the record browser or record viewer you may press **'Print Label'** to initiate printing. vPad-PM Tag will generate a preview of the label, after which the label may then be printed with the **'Print Label'** button.



Figure 5 - 'Print Label' dialog.

The printer type and label media are displayed on the dialog below the preview; these should match the printer and label stock in use. Note that label previews may or may not include a barcode as shown in the above example. If present, the barcode will correspond to the control number or ID obtained from the record. The ability to include a barcode on the label will depend on the printer model and its setup as configured by the **vPad Settings** app  on the tablet. For more information on printers and their setup, refer to *MN-129 vPad Settings Operator's Manual*.

vPad-PM Tag OPERATING MANUAL

3.4.1 Setting a Due Date

When a PM tag is to be printed, and if a due date for the next inspection or test is not found in the maintenance record, you will then be prompted to choose one for the label:



Figure 6 - Test Due Date Input.

The date initially shown on the **Confirm Test Due Date** dialog is based on the date of the test from the record (and which is shown at the top of the dialog), plus a default interval for PM inspections which is set by the *vPad Settings* app  on the tablet (see *MN-129 vPad Settings Operator's Manual*). If incorrect, the date may be adjusted with the selector on the left or alternatively the calendar tool on the right.

Once a due date has been set, press the **'OK'** button to begin printing, or press **'Cancel'** to abort. Users will not be prompted for a due date again until a different maintenance record without a due date has been selected in the record browser.

3.4.2 Troubleshooting

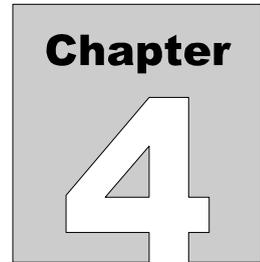
vPad-PM Tag will display an error message or dialog whenever it encounters a problem during printing. Solutions to such problems may be found in TABLE 3.4-1 below. Other problems not related to communication or printing may be experienced; these are covered in TABLE 3.4-2.

TABLE 3.4-1: Printing Problems and Solutions

Status Message / Dialog	Solution
ERROR: Enable label printing	Enable label printing with vPad Settings app.
PRINTER ERROR: No printer adaptor detected	Connect the XSC accessory specified for the “Printer type” on the Print Label dialog.
PRINTER ERROR: Printer adaptor is OFF-LINE	Reset the XSC accessory by unplugging it from the safety analyzer and then re-connecting it.
PRINTER ERROR: Bluetooth adaptor is OFF-LINE	Reset the wireless connection between the XSC accessory and the remote Bluetooth dongle. Unplug the XSC from the safety analyzer, then unplug the dongle from its power supply. Re-connect both after a short interval.
PRINTER ERROR: Printer is not connected or is OFF-LINE	Connect the label printer model specified as the “Printer type” on the Print Label dialog. Reset the label printer by switching it off, then back on after a short interval.

TABLE 3.4-2: Other Problems and Solutions

Problem	Solution
The “Maintenance records” dropdown menu does not contain the name of the desired App.	Confirm the desired App is installed on the tablet.
The test record browser is empty.	Confirm selected App has been used and has saved at least one test record.
The “Print Label” button is disabled.	Some “Printer type” options in printer settings do not allow labels from FAIL records. Instead, select a test record in the browser with a PASS result.
The printed label is different from the preview.	Ensure that the label printer is loaded with the correct label stock. For more information, contact Datrend customer service or your local dealer.



4 Upgrades and Maintenance

Software Applications (Apps) may be upgraded from time-to-time to provide enhanced features or improvements. Contact Datrend or your local dealer for information on these upgrades.

In some cases, the changes made to an App may be to correct operational issues that have come to the attention of DSI. These shall generally be referred to as maintenance upgrades. In other cases, the changes may be to improve performance or add features which would enhance the overall functionality of the App. The decision to apply a charge to any upgrade shall be solely at the discretion of DSI.

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