

vPad-XPORTTM

Test Record Export App for vPad Safety Analyzers

Operating Manual

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Revision	Revision History Description	Date
D	New File Transfer Operation. New XML Setting Improve Medimizer XML output	2015-Feb-18
E	New File Transfer Operation Improve Medimizer XML output for multiple data lines	2016-Nov-10

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1 Overview

vPad-XPORTTM is a software application (App) which may be installed on vPad-ESTM or vPad-353TM electrical safety analyzers, and which may be used to convert the native test report file (in text format) to a format suitable for export to a Computerized Maintenance Management System (CMMS). vPad-XPORT provides the following functions related to CMMS interfacing:

- select one or more files to convert for export
- set options for export format
- select export file destination

This chapter provides an overview of vPad-XPORTTM and its use in conjunction with vPad-mTTM and CMMS.

1.1 CMMS Programs

Automated electrical safety testers have been available since the mid 1980's. In North America, the defacto standard unit (until the early 2000's) was the medTester 5000, from DNI Nevada. There are a reasonably large number of Computerized Maintenance Management Systems available on the market, and many of them have implemented an interface to the medTester.

1.1.1 CMMS Export

A typical interface allows the user to create a list of equipment which is scheduled for Preventive Maintenance (PM) in a given time window, along with the test instructions (checkitems) and test procedures (checklists) related to the equipment list. The files created by the CMMS program are called the MTEXPORT files (MTEXPORT.ITM, MTEXPORT.IDN, and MTEXPORT.LST), and are transferred to vPad-mT or to the medTester, where they can be used to run tests and save reports.

1.1.2 CMMS Import

The report file saved in the medTester is called a MUP file, and it contains one or more test reports in what could generally be called a comma separated value (csv) file. This file can be imported by a CMMS program to update its database, indicating when a device was last tested, by whom, and whether it passed or failed testing. In addition to the MUP file format, some CMMS programs may be able to import and XML file format. This is a format that uses xml tags to demark specific data of interest, and for some CMMS programs, these data elements have specific meaning when importing the data. For each device, a text version of the test report may also be saved for reference.

1.2 vPad-mT™

vPad-mTTM is an app on vPad-ESTM and vPad-353TM electrical safety analyzers that will use the CMMS-native MTEXPORT files to automate the PM testing. These files can be transferred from the CMMS to the vPadTM tablet using a USB drive or Bluetooth file transfer. vPad-mTTM can also directly launch vPad-XPORTTM to convert and transfer files which have just been created, without exiting mT and starting XPORT.

1.3 vPad-XPORT™

vPad-XPORTTM is an App which works in conjunction with vPad-mTTM and vPad-Check[™] to convert vPad test records into MUP/CSV or XML format, and transfer the resulting file(s) to the PC for processing by the CMMS program.



2 Installation

The vPad-XPORTTM App is normally pre-installed on the vPad tablet, but the icon for the App may not have been placed on the Home screen .

Go to the Apps screen by pressing the Apps icon, in the upper right corner of the Home screen. Find the vPad-XPORT icon and press and hold the icon for a few seconds. You will then be able drag and drop the icon onto the Home screen.

In order to use the App it will need to be activated. When the App is started for the first time, the activation screen will be presented. Enter the activation code provided by your dealer to allow the App to run.

In the event that vPad-XPORT is not on the tablet, contact your dealer and an installation package for the app will be provided via download.

In order to use vPad-XPORT, you must have at least one software application installed and activated for automated electrical safety testing. For testing per AAMI-ES1 and/or IEC60601 standard, the vPad-AS App must be installed and activated. For testing per NFPA99-2012 standard, the vPad-NFPA App must be installed and activated. For testing per IEC62353, the vPad-A3 App must be installed and activated. In addition to one of the safety automation Apps, you will also need to have vPad-CheckTM installed and activated.

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3 Operation

vPad-XPORT is an App which is installed on the Android tablet and which may be run independently of, or simultaneously with, other vPad Apps.

vPad-XPORT may be used to convert Test Record files saved by vPad electrical safety testing Apps and send the converted files to other destinations such as a USB drive or to a PC using Bluetooth connections.

3.1 Startup

Press the vPad-XPORT icon, to start the App. A splash screen will display the product name and the software version.



Figure 1 - vPad-XPORT startup screen.

As the App starts, the splash screen is displayed, indicating the version of the App. vPad-XPORT is a stand alone App, and does not require connection to a vPadTM electrical safety analyzer measurement box to work.

3.2 Main Menu - File Browser

Following a successful start-up, vPad-XPORT will display the main menu of the App:



Figure 2 - File Browser of vPad-XPORT.

The main working screen of vPad-XPORT is the file browser (*Figure 2*), which is used to navigate the Datrend filing system on the Android tablet. This menu may be used to perform operations on single Test Record files or multiple Test Records at once. There are 3 folders where **Records** exist: vPad-ES, vPad-353 and vPad-Check. Files created using vPad-mT will be saved in the vPad-Check folder. Be sure you are in the correct folder when looking for test records you have created.

vPad-XPORT only supports files in the 'Datrend' folder and associated sub-folders. The file browser displays the current working directory (CWD) at the top of the list, beside the icon.

Subdirectories, if any are present in the CWD, are represented as file folders . Test Records are listed below file folders, with file format indicated as for Windows-compatible TXT files. If a file has been converted to MUP, XML or CSV format at least once, it will have a 'converted' icon . In this main menu, the text format test reports in the folder listed on the top line of the screen will appear in the scrollable list as shown above.

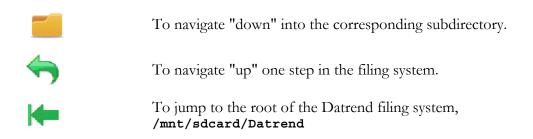
To return to the Android Home screen, press the icon on the navigation bar. Note this will only pause the App temporarily and will not actually terminate or close vPad-XPORT. To fully close the App, press the "**Exit vPad-XPORT**" button when viewing the main menu.

3.2.1 Selecting Files

Files are sorted in *descending* order by test date and time. The most recently-created Test Records are thus listed first. If the file listing extends beyond the bottom of the window, a scrollbar will appear at the extreme right. If the scrollbar appears, scroll the window downward by a press-and-drag gesture on the

To navigate the Datrend filing system, press:

center of the screen to view the earlier files.



Note: **sdcard** refers to *internal memory* of the Android tablet.



sdcard is **NOT** a removable "SD Card" memory device, which may be optionally plugged into the external card slot of the tablet.

Any accessory SD Card which may be plugged into the tablet's card slot is referred to as **extsd** in the Android file system.

vPad Apps save Test Record files in designated directories of the Datrend filing system. Directories used for saving the Test Records are preset by the Apps and cannot be changed by the user. The following table shows Test Record directories used by existing Apps. Future Apps which create Test Records are expected to follow a general scheme of "mnt/sdcard/<app_name>/Records" for the Test Record directory path.

TABLE 3.5-1. Test Record Directories

App	Test Record Directory Path
vPad-ES	mnt/sdcard/Datrend/vPad-ES/Records
vPad-AS	mnt/sdcard/Datrend/vPad-ES/Records
vPad-353	mnt/sdcard/Datrend/vPad-353/Records
vPad-A3	mnt/sdcard/Datrend/vPad-353/Records
vPad-Check	mnt/sdcard/Datrend/vPad-Check/Records
vPad-mT	mnt/sdcard/Datrend/vPad-Check/Records
vPad-NFPA	mnt/sdcard/Datrend/vPad-NFPA/Records
vPad-Incu	mnt/sdcard/Datrend/vPad-Incutest/Records

To select a file for conversion, tap on the checkbox to the far right of the filename. To select all files in the CWD, tap the checkbox at far right on the row.

When in the Listview display of any of the folders, there will four buttons displayed: **Convert, Sel. NON-Converted files**, **File Output** and **Exit**. The **Sel. NON-Converted files** and **Exit** buttons will always be enabled. In the Records folder, the **Convert** and **File Output** buttons will be disabled if no files are selected; or, they will be enabled if at least one file is selected. In the MUP, XML or CSV folders, the

Convert and **File Output** buttons will be disabled if no files are selected; or, if at least one file is selected the **File Output** button will be enabled.

Files may be selected for processing by touching on the filename row, or by touching the checkbox at the end of the row. When selected, the checkbox will be enabled. All of the files can be selected at once by selecting the checkbox on the CWD row. If already selected, touching this checkbox again will de-select all the files.

3.2.1.1 Converting Files

With one or more boxes checked, these buttons become enabled:

Convert Press to convert the selected file(s) into the format set in the Settings

function. Resulting files are saved to the /MUP, /XML or, /CSV

subdirectory, as appropriate.

Sel. NON- Press to select all of the files which have not yet been converted to the

Converted files MUP, XML or CSV format. This is an easy way to select 'new' files for

conversion.

File Output Press to convert the selected file(s) into the format set in the Settings

function, and send the files to another destination using the File Output function. Resulting files are saved to the /MUP, /XML or, /CSV

subdirectory, as appropriate.

Ensure the appropriate converted file format has been selected in the Settings function, and then press the button reflecting whether a simple conversion is to be made, or the converted file is to be transferred.

If a Prefix has been setup in the Settings menu, the Prefix will be added to the front of the filename.

For single file MUP conversions, the basic filename will be derived from the MMDD-HHMM portion of the original filename. For multi file conversions, the basic filename will be derived from the MMDDHHMM of the date of conversion.

For CSV file conversions, each file converted will have matching 'converted' file in the CSV folder, with a csv file extension. The basic filenames will be identical to the original unless the prefix has been added.

For XML file conversions, there will be only a single XML file created regardless of the number of files selected.

3.2.1.2 Transferring files

If "**File Output**" is pressed, the selected file(s) will be converted and then sent to one of the destinations available in the File Transfer screen. If already in the MUP, XML or CSV folder, there will be no conversion, the selected file(s) will simply be transferred to the selected destination.



Figure 3 - File Transfer Options

Transfer to USB Drive

Select the "Transfer By: USB external storage" to convert the selected files to the previously selected format and save the file to a USB flash drive which has been connected to the tablet.

After copying, an Alert Dialog is displayed which will prompt you to delete the files stored on the Android tablet.

Deleting files after transfer to another system is optional, but is considered good practice to maintain data synchronization and avoid duplication of activities on files. When the dialog is displayed, respond "Yes" or "No" as desired.

If the files are not deleted after conversion, they will have their file icon changed to the 'converted' file icon, ion, to mark them as having been converted to another format. This does not prevent them from being converted again.

The means by which a USB flash drive may be connected to the Android tablet will depend on tablet model.

The standard tablet model has a micro-USB HOST port. To connect a USB flash drive to this tablet, connect the USB Host Adaptor cable provided with the tablet to the HOST port. A USB flash drive may then be plugged into the adaptor cable.

Alternately, the converted file can be sent via Bluetooth file transfer.

Transfer via Bluetooth

Select the "Transfer By: Bluetooth" to convert the selected files to the previously selected format and send the file to the Bluetooth Exchange Folder on your Bluetooth enabled PC. Potentially suitable Bluetooth devices will be made available in the dropdown list labelled **Paired Devices**. You will need to know the Bluetooth name of your PC.

When Bluetooth is selected there is also the option to identify the Bluetooth address to be used as the destination for a) copying; and b) printing. With the Copy radio button enabled, select the Bluetooth address for the destination (normally a PC or other tablet/smartphone). Once the Copy address has been selected, pressing Execute will transfer the file. Enable the Print radio button to select the Bluetooth address for the destination printer. During the Printer address selection the Execute button will be disabled.

These settings will be remembered even if Cancel is pressed, and will be the default addresses used in the future for Copy or Print functions in this and other Datrend Apps.

After copying, an Alert Dialog is displayed which will prompt you to delete the files stored on the Android tablet.

Deleting files after transfer to another system is optional, but is considered good practice to maintain data synchronization and avoid duplication of activities on files. When the dialog is displayed, respond "Yes" or "No" as desired.

If the files are not deleted after conversion, they will have their file icon changed to the 'converted' file icon, ion, to mark them as having been converted to another format. This does not prevent them from being converted again.

Ensure that your PC has Bluetooth enabled, and that the vPad tablet has been correctly **Paired** with the PC prior to using this function.

Transferring files may also be accomplished using Dropbox, a commercial cloud sharing application.

Transfer via Dropbox

Select the "Transfer By: Dropbox" to convert the selected files to the previously selected format and send the file to the Dropbox\Import folder on your PC. Set up Dropbox on your PC and on your tablet following the instructions on the Dropbox website, ensuring that they are linked together (eg. Both the PC and the tablet point to the same location in the Dropbox.

These settings will be remembered even if Cancel is pressed, and will be the default addresses used in the future for Copy or Print functions in this and other Datrend Apps.

After copying, an Alert Dialog is displayed which will prompt you to delete the files stored on the Android tablet.

Deleting files after transfer to another system is optional, but is considered good practice to maintain data synchronization and avoid duplication of activities on files. When the dialog is displayed, respond "Yes" or "No" as desired.

If the files are not deleted after conversion, they will have their file icon changed to the 'converted' file icon, ion, to mark them as having been converted to another format. This does not prevent them from being converted again.

Ensure that your PC and tablet are sharing the same Dropbox.

3.2.2 Application Settings

Application settings are accessed by pressing the icon at the top right corner of the file browser menu (*Figure 4*). In vPad-XPORT this icon is accompanied by an icon indicating the name of the current conversion format (eg. v).

In some CMMS systems, certain information is not expected to be found in the header tags for a device. If your CMMS has a requirement to "Turn Prompts Off", or to "Not Press F5 for device info prompts", then the Exclude header fields setting next to the XML setting should be checked, as shown below in Figure 4.

In addition to the file format setting, it is possible to add a prefix to the filename to more easily group output files for identification. The prefix could, for instance, be a technician's name or code. The output files could then be easily associate with the correct technician.

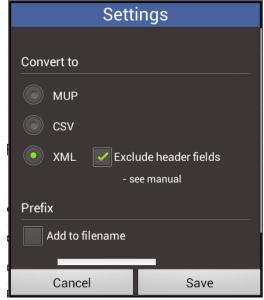


Figure 4 - Settings Options.

Make the selection of the file format and prefix, and press **Save**.

In the current version of vPad-XPORT, the XML file has been tailored to Medimizer X3 requirements.



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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