OPN-2004/5/6, PX-20 and RS-3000 Batch demo application

Version RFI3793F (OPN-2004/5/6) / RFM3793F (PX-20, RS-3000)

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Contents

1 Overview

The batch demo application for the OPN-2004/5/6, PX-20 and RS-3000 (referred to in this document as; ''companion scanners'') demonstrates the ability of these devices to save scanned barcode data into a file on the device, and for the devices to deliver the scanned barcode data file to a local PC.
The data files can be retrieved from the scanners either by using USB-MSD (Mass Storage Device; the barcode scanner effectively becomes a small USB thumb drive) or by using the OseComm or NetO file transfer protocols over USB-VCP (Virtual COM Port; serial port emulation).
Since these companion scanners don't have a display to show any instructions to the user, this demo application implements a user interface that consists entirely of using just the 2 keys to scan barcodes. This brief setup guide describes all of the demo application's features as well as handling instructions.
More product details, additional support and more configuration options to customize this application to your own preferences (by using the Universal Menu Book) can be found at www.opticon.com

1.1 Capabilities of the Batch demo application

The following features are currently supported:

- Scanning and storing barcodes into a database file on the internal RAM disk.
- Retrieving the barcode database file via a local PC or laptop using the OseComm or NetO protocols over USB-VCP.
- Using the companion scanners as USB Mass Storage Devices (MSD) to retrieve the barcode database file.
- OSE Universal Menu Book support to configure all barcode decoders, prefixes and suffixes, read modes, and various other options.
- Storing of configurations in non-volatile memory to allow all settings to be restored after a reset.
- Configuring the output format of the database file.
- Simple firmware upgrading via USB-VCP by using Appload, Opticon's utility for flashing firmware on barcode readers.

2 System Requirements

2.1 Minimum required OS version

This demo application requires the OS version:

OPN-2004:	**RBIV0035 (or higher)**
OPN-2005:	**RBLV0038 (or higher)**
OPN-2006:	**RBNV0038 (or higher)**
PX-20:	**RBMV0038 (or higher)**
RS-3000:	**RBZV0047 (or higher)**

To check the currently installed OS version, use Appload (Select: 'Utilities' > 'Show software version').

To check the currently installed application version as well as the OS version, scan the 'Z1' menu label while in USB-VCP mode. (See Universal Menu Book, Chapter 7.) Note that you will need to have an open serial terminal connected to the COM/serial port allocated by your host PC's OS to see the reported versions; this can be done with Appload's RS232 Monitor.

2.2 OseComm32 host application

This demo application can use Opticon's OseComm32 application to transfer files from the companion scanners to a local PC or laptop. This application can be downloaded from our web site. The minimum required OseComm32 version is Version 1.0.4.0.

2.3 NetO32 host application

This demo application can use Opticon's legacy file-transfer protocol, NetO, by use of the NetO32 Windows application. This application can be downloaded from our website. Note that continued development for NetO32 has ceased in favor of OseComm, but it is still supported by this demo application. Use the NetO configuration label in Appendix A to switch to the NetO protocol and see chapter 9.2 for more information.

2.4 Appload

To be able to install this demo application firmware onto your companion scanner, you'll need to have Appload installed on your PC. Make sure you have the latest version of Appload, which can be found on our web site.

Please read the 'Loading of software' section of this manual before downloading any software on your companion scanner.

2.5 Software updates

In the future more features and bug fixes are likely to be implemented into the OS and this application. To find out if there are software updates available, please check our web site.

All available software and documentation for the companion scanners can be found at www.opticon.com in the following sections:

'Service & Support' > 'Downloads' > 'OPN-2004 / OPN-2005 / OPN-2006 / PX-20 / RS-3000'

3 Customizing your companion scanner

In the following section a brief overview is given on how to configure your companion scanner for your desired application.

3.1 Selecting the USB interface (VCP or MSD)

This batch demo application supports two methods of retrieving your barcode database file from the companion scanners:

- USB Mass Storage Device (USB-MSD)
- USB Virtual Com Port (USB-VCP) using OseComm or NetO32 to retrieve the file

After loading this software on your companion scanner for the first time, the companion scanner will automatically be reset to use USB-VCP by default.

If you would like to use your companion scanner as a USB-MSD device, read the label below.

(The labels below can be read without reading any SET/END labels)

USB-MSD default	C04	

More information on how to use your companion scanner as a USB-MSD device will be given in chapter 8.

To switch back to USB-VCP default (to load software, for example) read the label below.

USB-VCP default	C01	

More information on how to use your companion scanner with USB-VCP and OseComm32/NetO32 will be given in Chapter 9.

3.2 OSE Universal Menu Book support

The companion scanners this demo application supports can be configured by scanning various configuration barcodes found in our Universal Menu Book*. This makes it possible to customize your companion scanner without having to actually change the source code of this demo application.

The companion scanners supports (most of the) menu options listed in the following chapters:

1. Defaults (See the supported default label listed above)
3.1 Enabling/disabling readable codes
3.2 Setting of fixed, minimum and maximum lengths of readable codes
3.3 Code specific options (2D symbologies only supported by the PX-20 and RS-3000)
4.1 Case conversion
4.2 Set prefixes
4.3 Set suffixes
5.1 Read modes, add-on wait modes
5.1.1 Multiple read reset time
5.1.2 Quiet zone options (margins)
5.2 Read time options
5.4 Redundancy
5.5 Positive and negative barcodes
6.1 Buzzer settings
6.2 Good read LED options
7.1 Diagnostics

** The Universal Menu Book can be downloaded from our web site.*

4 Barcode database file

All scanned unique barcodes are stored in a database file with non-fixed length records. Besides the barcode data, the quantity, serial number and a date/time stamp can be stored.

The default format of each record in the database file is:

```
<Barcode>,<serial #>,<hh:mm:ss>,<dd/mm/yyyy>
```

Example:

```
8710841030181,003278,14:41:03,23/11/2009
8710841090246,003278,14:41:04,23/11/2009
9780131103627,003278,14:41:00,23/11/2009
```

The filename of the database is 'SCANNED.TXT', which is stored on the companion scanners.

The resulting database file can be imported into various applications as a comma-separated value (CSV) file.

When using the USB-VCP with OseComm or NetO to retrieve the barcode data, any transmitted data will be appended (by default) to any previously retrieved barcode data on your host PC, so all data of one or more companion scanners will end up in a single database file. The barcode file will be deleted from the companion scanner after successful transmission.

When using USB-MSD you can manually retrieve the database file 'SCANNED.TXT'. *

*Since the USB-MSD file system is read-only by default, use the +-FORMAT-+ label on chapter 6 to erase the data after all barcodes have been copied from the disk (See chapter 6 and 8 for more information).

To customize the output format of the database file, please refer to Appendix A.

If a quantity field is specified in the output format, then each identical barcode will increase the quantity by one.

5 Scanning barcodes

This demo application uses the trigger button to enable the scan engine to scan barcodes.

If a barcode is read using the trigger key and is successfully read, a good-read beep is sounded and a green good-read LED is shown. The barcode is then stored in the database with a quantity of '1'. If the same barcode is scanned again the quantity is incremented by one, if quantity is an enabled field in the barcode database output format.

To decrement the quantity of a barcode that's already in the database the barcode should be read using the small delete key. A short good read beep is sounded and an orange good-read LED is shown.

If a barcode is scanned using the delete key that isn't present in the database, or that already has a quantity of '0', a low error beep is sounded and a red LED is shown.

Negative quantities are not supported by default, but when using the 'Negative quantities' option (see Appendix A) it is possible to scan negative quantities of barcodes. When a specific barcode has a negative quantity the LED color changes from green (add) or orange (subtract) to red on a good read and the sound becomes slightly lower.

6 Deleting the database file from the companion scanner

It is possible that your companion scanner may become full, have a corrupt flash disk or you've successfully copied the barcode data from the disk in USB-MSD mode. In these situations it is possible to read the label below to erase all files from the flash disk.*

You can also delete all the files on the flash disk by holding the clear key (small square button) for 10 seconds. This option is disabled by default; see Appendix A for codes to toggle this option on and off.

* Note: If the batteries of the companion scanners go dry, then they won't lose their barcode data. However it is possible that the internal clocks will be reset if the batteries are completely drained. This requires the correct time to be reconfigured using Appload or OseComm.

7 Installing drivers

7.1 USB-VCP drivers

To be able to communicate with the companion scanners using USB-VCP, you will need to have Opticon's USB driver installed on your PC. This driver can be found on our website on the 'Service and Support' page.

www.opticon.com/SERVICE-AND-SUPPORT.aspx

The driver can be found in the section called 'Software' and then selecting the OPN-2004, OPN-2005, OPN-2006 or PX-20 on the following page.

USB Drivers Installers.exe	USB-VCP driver for Windows 2000 , Windows XP (32bit) & Windows Vista/7 (32bit) USB-VCP driver for Windows XP (64bit) & Windows Vista/7 (64bit)

After installing the USB driver, you can connect your companion scanner to USB using the mini-USB cable. Windows will then automatically install a virtual COM port on your PC, which can be selected in various applications, like Appload, Hyperterminal, OseComm32 and NetO32.

8 Using the Mass Storage Device (MSD) interface

When the USB-MSD interface has been selected (see chapter 3.1) the companion scanner will behave like a read-only USB thumb drive when connected to USB.

Since version RFx3793x the file system has been made **read-only** (write protected) due to issues with Windows 8.1 and Windows 10, causing the file system to become corrupt when the device was disconnected without performing a safe removal. This is due to the incorrect creation of a 'system volume information' folder on the FAT12 file system by Windows.

When using Windows 8.1 and 10. To prevent data-loss, make sure you enable the Windows option: 'Do not allow locations on removable drives to be added to libraries' before considering re-enabling full access using the options below :

USB MSD Read-only (default)

USB MSD Read/write

Any scanned barcodes will be stored in a comma separated value file called 'SCANNED.TXT', which can be copied from the companion scanner using a file browser.

Due to the limited amount of flash memory inside the companion scanners the size of the file system is rather small, being about 1MB. This is enough space for storing barcodes, but not for using the companion scanners as a portable hard drive.

Tip: Barcode storage capacity can be increased by 100% by disabling the delete-key and quantity field (because 'SCANNED.TMP' and 'SCANNED.IDX' will not be used)

Important notes:

- *Since the file system is read-only by default, use the +-FORMAT-+ label on chapter 6 to erase the data after all barcodes have been copied from the disk.*
- *When manually deleting 'SCANNED.TXT' also delete the local files 'SCANNED.TMP' and 'SCANNED.IDX' from the disk as well, because those are the files the companion scanner is actually using, while 'SCANNED.TXT' is merely an export of these 2 files.*
- *Editing 'SCANNED.TXT' will have no effect and will be reverted back to its previous state as soon as the USB cable is subsequently connected again.*
- *Editing 'SCANNED.TMP' will cause 'SCANNED.IDX' (fast search index-file) to become corrupt, which can cause the companion scanner to crash!*

9 Using the USB-VCP interface

When the USB-VCP interface has been selected (see chapter 3.1), the barcode database file can be transmitted to a local PC using the OseComm or NetO file transfer protocols. To be able to receive the files on the host, you'll need **OseComm32** or **NetO32** installed. The latest version of OseComm32 can be downloaded from our website under 'Service and support' > 'Software' > 'OseComm'. NetO32 can be downloaded from http://ftp.opticonusa.com/Downloads/NetO32.zip.

OseComm is used by default in this demo application. OseComm32's use will be described below. The use of NetO32 will be described in the following chapter.

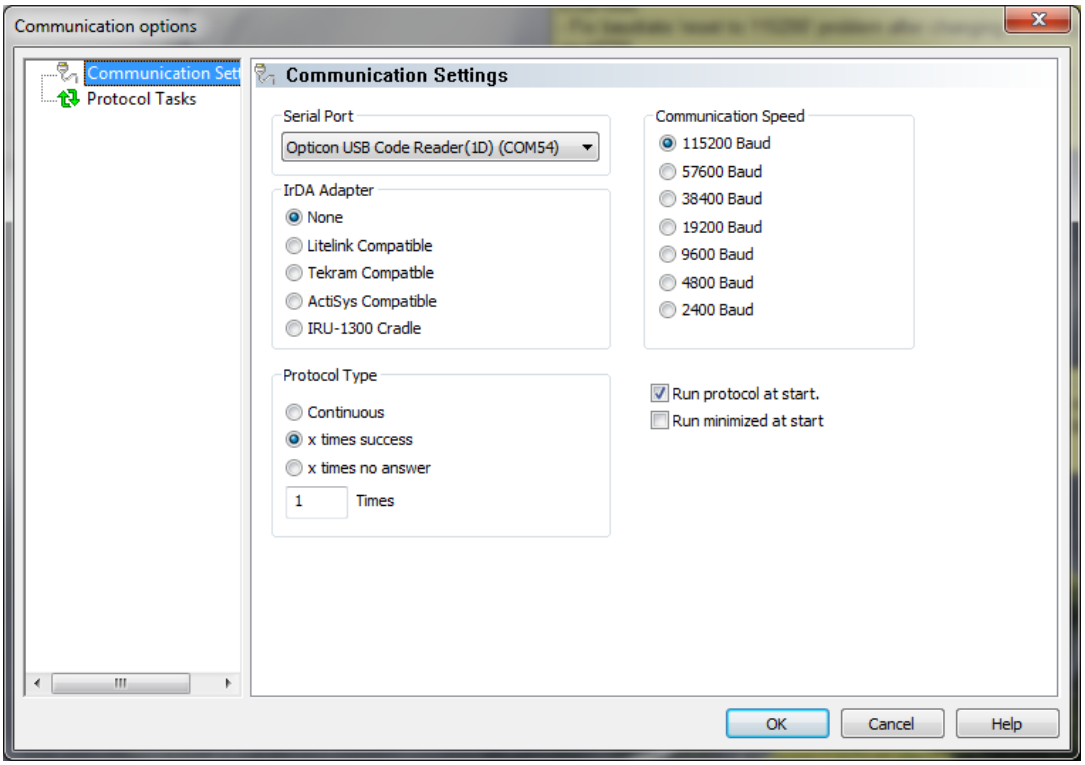
Configuration codes to switch between OseComm and NetO32 are listed in Appendix A.

9.1 OseComm

The serial configuration of OseComm32 is limited to selecting the correct COM-port of your device in the Serial port Communication Settings window of OseComm32.

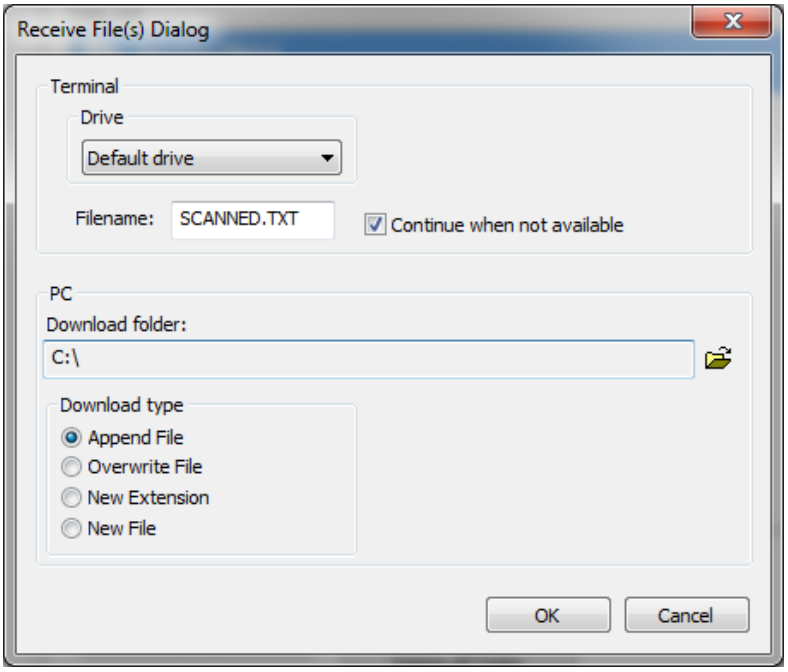
Because the serial port of your companion scanner only exists while the device is connected, choose 'x times success' as 'Protocol type' to be able to safely disconnect the USB cable after the protocol has finished. Don't disconnect your device while the protocol is still running!

Select 'Run protocol at start' if you wish to execute the protocol tasks at startup.



Next, go to 'Protocol Tasks', select 'Receive File(s)' under 'Task Group' and press 'Add task'.

In the Receive Files(s) Dialog the task can be configured as shown in the following image.

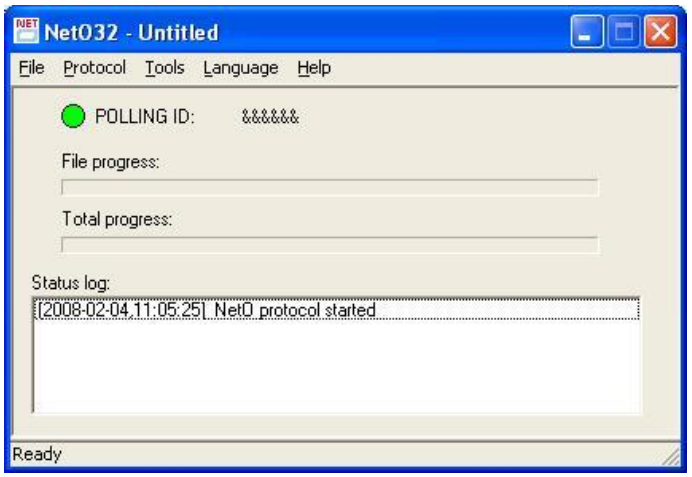


Finally, select ‘Options’ > ‘Start Protocol’.

More information about additional OseComm32 features can be found in the help file of OseComm32.

9.2 Neto32

When the USB-VCP interface has been selected (see chapter 3.1) and the NetO protocol (see Appendix A), then the barcode database file can be transmitted to a remote PC or laptop using NetO32. The data is transmitted by the USB cable (USB-VCP). To be able to receive the files on the host, you'll need **NetO32** to be installed. The latest version of NetO32 can be downloaded from our web site under 'Service and support' > 'Software' > 'Neto32'. More information about additional Neto32 features that aren't described in this manual can be found the help file of NetO32.



Screenshot of the main window of NetO32

When using USB-VCP and the USB cable to retrieve your data, then the RS232 configuration of NetO32 is limited to selecting the correct COM-port of your device in the RS232 configuration window of NetO32.

However, when using the USB cable it's not possible to keep NetO32 running in the background due to the fact that the USB COM-port won't be present on your system until you've physically connected your device to your USB port. Also it's not recommended to disconnect or to reconnect your companion scanner without having stopped the NetO-protocol first.

For these reasons it's easiest to place a NetO32 configuration file on your desktop that downloads the data from your device once and then immediately closes again. This can be done by selecting the following 3 options in NetO32.

- Protocol > Polling and Timing > Protocol type: Single
- Protocol > Polling and Timing > Protocol type: Quit after single run
- Miscellaneous > Appearance > Run protocol on start

The correct sequence to retrieve the data would be connecting your device to the USB port, clicking on the NetO32 configuration file and then remove the device from your PC when desired. Don't forget it regularly needs be charged as well.

10 Loading software on the companion scanner

The following chapter will describe how to load new software onto the companion scanners.

Important note: When installing a new operating system firmware or application firmware on the companion scanner it's possible that any barcode data left on the device will be lost!

10.1 Software codes

The companion scanners run an embedded OS (operating system) and an embedded application. Both the OS and the application can be loaded by a small PC application called **Appload**, which can be downloaded from our web site.

The operating system filename and version that contain a unique three-letter code, signifying the particular companion scanner the operating system is built for. Before you try to load a new operating system on your companion scanner, you have to know which operating system file (e.g. RBIVxxxx.hex) should be loaded on your companion scanner. This same convention is typically followed for application filenames and versions as well.

In the table below you can find the software codes for the supported companion scanners.

Model	OS	Application
OPN-2004	RBI	RFI
OPN-2005	RBL	RFI / RFL
OPN-2006	RBN	RFI / RFL / RFN
PX-20	RBM	RFM
RS-3000	RBZ	RFM

10.2 Loading software using Appload

To be able to load software on the companion scanners using the mini USB cable, first make sure you've selected the USB-VCP interface (see chapter 3.1), because USB-MSD is not yet a supported interface from which software can be installed. Also make sure you have the USB-VCP driver installed on your PC (see chapter 7.1).

After that, please follow the instructions below.

- Connect the companion scanner to your PC or laptop using the mini-USB cable.
- Start Appload and select the (virtual) COM port of your companion scanner in Appload.
- Select the OS or application file in Appload using File > Download.

11 Other available applications

Besides this batch demo application, there are other applications available on our website that might fit your specific use case better.

Software V3727x: OPN-2001 simulation application

This application turns the companion scanner into an OPN-2001-compatible batch scanner.

Use this OPN application in combination with the OPN-2001 PC application for Windows (or develop your own application using the SDK that's available for the OPN-2001).

Note: When planning to use the companion scanner solely as a standard OPN-2001, so without Bluetooth or the need to run other applications, please note the following (hardware) differences:

- The OPN-2004/5/6 don't support laser aiming (laser dot)
- The OPN-2004/5/6 can't change their scan angle to shorten the laser line
- The flash disk of the OPN-2004/5/6 is slower than the storage method of the OPN-2001
- The PX-20 / RS-3000 support 2D-symbologies

Software V3791x: Bluetooth application

The Bluetooth application enables real-time barcode scanning into any Bluetooth device by supporting a wide variety of Bluetooth profiles (OPN-2005, OPN-2006, PX-20 and RS-3000 only).

The following features are currently supported:

- Connecting to a remote device (as master) and transmitting data using Bluetooth SPP (analogous to USB-VCP)
- Making the Bluetooth connectable (as a slave device) and discoverable to allow a remote host device to connect with the Bluetooth companion scanners, and subsequently allowing the transmission of data using Bluetooth SPP
- Making the Bluetooth companion scanners connectable (as a slave device) and discoverable as a Bluetooth HID (keyboard) device to allow a remote host device to connect with the Bluetooth companion scanners, subsequently allowing the transmission of data as if it were being typed on the remote host device
- Reconnecting to a paired remote device (as master) to quickly reestablish a lost Bluetooth SPP or HID connection without having to reenter a PIN code
- Opticon Universal Menu Book support and configuration using Opticon serial commands
- iPhone / iPad compatibility (remote wake and virtual keyboard toggle)
- Secure Simple Pairing (SSP) using the "Just works" model
- USB-VCP and USB-HID support when not connected to Bluetooth

11.1 Trouble shooting

Since the companion scanners don't have a display, they also don't have a system menu to resort to when a crashing application or OS prevents you from loading new software on your companion scanner.

For this reason the companion scanners have a few escape mechanisms to allow you to restart, halt your application, and/or install new software. This can be very useful in case the companion scanner has crashed or is restarting due to a crashing application or OS.

11.1.1 Restart mechanisms

Automatic	The companion scanners have a watchdog timer to determine whether the OS is still running or has crashed. This watchdog will cause the device to restart after about 1 second if the OS has crashed. This watchdog timer will not cause a restart when only the application has crashed.
Manually	The companion scanners have a manual restart mechanism that allows you to restart in situations that the OS is still running, but the application has crashed. In order to activate this mechanism, press and hold both the trigger and delete key for at least 20 seconds. After the companion scanner has sounded a short beep, you can release both keys to complete the restart.

11.1.2 Halting your application

- Restart your application using one of the two restart methods listed above, but keep both keys pressed after the short beep.
- Release the trigger key first to halt the application.

If successful, the LED of your companion scanner *should now be blinking orange. You should now be able to load new application or OS software.*

To exit the halted application state, press both keys for 20 seconds.

11.1.3 Halting the Operating System (only required if a corrupt OS is installed)

- Restart your application using one of the 2 methods listed above, but keep both keys pressed after the short beep.
- Release the clear key first to halt the operating system.

If successful, the LED of your companion scanner *should now be blinking red. You should now be able to load a new OS.*

To exit the halted operating system state, press both keys for 3 seconds.

12 Version history

RFG35410	First release	December 7, 2009
RFG35411	Added configurable database formatting	December 14, 2009
RFG35412	Fixed very slow storing of barcodes	February 3, 2010
RFG35413	Preliminary addition of USB-MSD	June 10, 2011
RFG35414	Added USB-MSD and updated manual	June 17, 2011
RFG35415	Fixed USB-MSD issue	June 29, 2011
RFG35416	Small LED bug fixes	March 3, 2012
RFIS0940	First release OPN-2004	December 26, 2012
RFI37931	OSE version OPN-2004 with bug fixing	April 9, 2013
RFI37932	Fixed USB-MSD issues Added OPN-2005 support Added PX-20 support (incl. 2D barcodes)	April 25, 2013
RFI37933	Added NetO support Ported previous functionality for field length from RFG35416 Removed blinking green LED when connected to USB – charge indicator is now active Small fixes in regards to read mode	July 31, 2013
RFI37934	Added ability to format flash disk by holding clear key for 10 seconds	August 22, 2013
RFI37935	Format of flash disk by clear key now an option Support for fixed and variable length barcode and quantity fields, configured by options	September 17, 2013
RFI37936	Fixed reading of C128 configuration labels for the PX20	October 22, 2013
RFI37937	Fixed database issue at which duplicate barcodes could create double entries and deleting of a barcode could fail	January 27, 2014
RFI37938, RFM37938	Split application into 2 separate version to improve battery life of OPN-2004/5 and read modes of PX20 Appload now returns application version Fixed issue that could cause a corrupted database	February 20, 2014
RFI37939, RFM37939	Scanning barcodes with a full file system now properly indicates it can't store a barcode	March 4, 2014
RFI3793A, RFM3793A	- Added OPN-2006 compatibility to manual - Allowed reading of barcodes in USB-MSD mode when charging only	September 19, 2014
RFI3793B, RFM3793B (OS: RBxV0032)	- Improved read performance - Fixed power consumption issue OPN-2004	November 11, 2014
RFI3793C, RFM3793C	- Fixed incorrect disk-full behavior - OPN-200x: Fixed 2 digit Code-128 labels to be identified as code-128 menu labels	June 19, 2015
RFI3793E, RFM3793E (OS: RBxV0035)	- Increased barcode capacity by 100% (when delete-key and quantity field are both disabled) - Fixed file system issues (causing corrupted/missing data) - Changed USB-MSD to **read-only** to prevent Windows 8.1/10 from corrupting the FAT (without save removal). - Changed default output format of barcode file (no quantity field is added)	January 26, 2016
RFI3793F, RFM3793F	- Added field separator: Space	April 25, 2016
	Updating styling of the manual Added RS-3000 support	March 29, 2022

Please check our web site at *www.opticon.com* to see if there are updates available for this application, the Operating System, OseComm32 and/or this manual.

Appendix A: Database output formatting

The default output format of each record in the database file is:

```
<Barcode>,<serial #>,<hh:mm:ss>,<dd/mm/yyyy>
```

However, this application allows you to customize this format to make it suitable for your own application. The following aspects of the output format are configurable. Read the configuration barcodes on the following page to select the various options.

Date format	16 date formats are supported (see following page)
Time format	2 time formats are supported (hh:mm:ss and hh:mm)
Field separator	The field separator is the character that is used to separate the various fields of a database record. 7 different separators can be selected.
Enable/disable delete key *	By default the small delete key can be used to remove a previously read barcode from the database or reduce its quantity by 1. By disabling the delete key this option can be disabled.
Barcode field size	By default the barcode field size is variable length, but this can be changed between 1 and 99 characters by reading 2 configuration labels on the following page to specify both digits of the desired size.
Quantity field size *	By default the quantity field is variable length, but this can be changed from 1 to 9 digits if desired.
Delete record if quantity=0	By default a record is deleted if a barcode in the database (with a quantity of 1) is read using the delete key. However if you desire to keep a record of all delete actions it is possible to leave the record with a quantity of '0' in the database by disabling this option.
Negative quantities allowed/not allowed	By default you can't delete a barcode that's not present in the database. However for some purposes it can be useful to be able to read them anyway to specify a negative quantity.
Field output sequence	Each record can contain up to 5 fields (barcode, date, time, quantity and serial number). The output sequence can be customized by reading up to 5 labels on the following page. By not specifying a quantity field each barcode will be stored separately in the database. The database also will not be sorted and in case a barcode is read using the delete key the last occurrence in the database will be deleted. It is not allowed to not specify a barcode field in the output sequence. *Note: When changing the field sequence, make sure you've downloaded the existing database file from the OPN/PX20 or otherwise formatted the RAM disk.*

** Hint: Disabling the delete key and quantity field increases storage capacity by 100%, because no .idx-file and .tmp are created.*

Date Format			
Option	Default	Encoded Data	Barcode
DD-MM-YYYY		[+D0	
MM-DD-YYYY		[+D1	
DD-MM-YY		[+D2	
MM-DD-YY		[+D3	
YYYY-MM-DD		[+D4	
YY-MM-DD		[+D5	
DD-MM		[+D6	
MM-DD		[+D7	
DD/MM/YYYY	Yes	[+D8	
MM/DD/YYYY		[+D9	
DD/MM/YY		[+DA	
MM/DD/YY		[+DB	
YYYY/MM/DD		[+DC	
YY/MM/DD		[+DD	
DD/MM		[+DE	
MM/DD		[+DF	

Time Format			
Option	Default	Encoded Data	Barcode
HH:MM:SS	Yes	[+T0	
HH:MM		[+T1	
Field Separator			
Comma	Yes	[+FC	
GS		[+FG	
Semicolon		[+FH	
LF		[+FL	
Pipe		[+FP	
CR		[+FR	
Slash		[+FS	
Tab		[+FT	
NUL		[+FZ	
Space		[+FA	
Delete Key			
Disabled		[+QB	
Enabled	Yes	[+QC	
Format Off	Yes	]+DNO	
Format On		]+DEL	

Negative Quantities			
Option	Default	Encoded Data	Barcode
Allowed		[+QN	
Not Allowed	Yes	[+QP	
Quantity Field Size			
Variable	Yes	[+Q0	
1		[+Q1	
2		[+Q2	
3		[+Q3	
4		[+Q4	
5		[+Q5	
6		[+Q6	
7		[+Q7	
8		[+Q8	
9		[+Q9	
Delete Record if Quantity == 0			
Disabled		[+QY	
Enabled	Yes	[+QZ	
OseComm / NetO			
OseComm	Yes	[+OC	
NetO		[+NO	

Barcode Field Size (One's Place)			
Option	Default	Encoded Data	Barcode
0 / Variable	Yes	]+B00	
1		]+B01	
2		]+B02	
3		]+B03	
4		]+B04	
5		]+B05	
6		]+B06	
7		]+B07	
8		]+B08	
9		]+B09	
Barcode Field Size (Ten's Place)			
00 / Variable	Yes	]+B0-	
10		]+B10	
20		]+B20	
30		]+B30	
40		]+B40	
50		]+B50	
60		]+B60	
70		]+B70	
80		]+B80	
90		]+B90	

Field Ouput Sequence (Field 1)			
Option	Default	Encoded Data	Barcode
Barcode	Yes	]+S0B	
Quantity		]+S0Q	
Serial #		]+S0S	
Time		]+S0T	
Date		]+S0D	
Field Output Sequence (Field 2)			
Barcode		]+S1B	
Quantity		]+S1Q	
Serial #	Yes	]+S1S	
Time		]+S1T	
Date		]+S1D	
<None>		]+S1N	
Field Output Sequence (Field 3)			
Barcode		]+S2B	
Quantity		]+S2Q	
Serial #		]+S2S	
Time	Yes	]+S2T	
Date		]+S2D	
<None>		]+S2N	

Field Ouput Sequence (Field 4)			
Option	Default	Encoded Data	Barcode
Barcode		]+S3B	
Quantity		]+S3Q	
Serial #		]+S3S	
Time		]+S3T	
Date	Yes	]+S3D	
<None>		]+S3N	
Field Output Sequence (Field 5)			
Barcode		]+S4B	
Quantity		]+S4Q	
Serial #		]+S4S	
Time		]+S4T	
Date		]+S4D	
<None>	Yes	]+S4N	

Aiming (PX20 Only)

Aiming Help ON

Aiming Help OFF