

Device Manager SOFTWARE

S Biomark	Device Manager v.1.2.9				- 1	o x	
File Tool	s Help						
Communica	ation:						
Reader:	BLE Data Logger / IS1001	\sim			. 🔿		
Serial Port:	MicroLogger.0341 [34.81.F4.4	44.25.05] 🛛 🗸 🚷	Refresh 115200 V Close	Bioma	rk	8	
IP Address:	169.254.170.30		Port #: 10001 Connect	SPECIALISTS IN IDENTIFICATION	SOLUTIONS		
Device	Manager Tag Mer	nory Manager					
0.11	Tay men	nory manager	T				
Controls:			Teminal:			ture to Ele	
BLE	Data Logger / IS10	001 😏		100 11 (100)		ture to File	
			FDXB Signal Level:	178 mV (19%)		^	
A BL	E Data Logger Setting	ns	Temperature:	26.8 C			
	E Buid Eoggor Colling	95	Sync. Input Present:	N/A			
			Sec. Master Active:	N/A			
Se	t BLE Data Logger Date/Time F	rom Computer Clock	Active Alarms:				
			Tags Memory Full				
Tag ID D)isplay Format:	HEX 🗸	INF: End Of Full Status Report				
			RDD				
Tag Rec	ord Display Format:	Full 🗸	INF: Start Of Diagnostic Data Rep	port			
			Reader:				
Tags Co	mmunication To Local Port:	Enabled	Operation Mode:	Scan			
			Detection Counter:	18			
Store Vir	tual Test Tags To Memory:	Enabled	Tags In Memory:	7861 (99%)			
			Status Reports In Memory:	63 (31%)			
Attached	Reader:	IS1001 ~	Input Voltage:	23.6 V			
			Exciter Voltage:	11.9 V			
Firmware	Update:	Update	Antenna Tuning:	Tuned			
			Antenna Current:	2.2 A			
			Tuning Capacitors:	300			
			Tuning Phase:	401			
			Tuning Relative Phase:	0			
			FDXB Signal Level:	282 mV (31%)			
			Temperature:	26.8.0			
			Sync. Input Present:	N/A			
			Sec Master Active:	N/A N/A			
▼ S1	001 Reader Settings		Active Alarms.	N/A			
	<u> </u>		Tage Memory Full				
▼ IS1	001 Antenna/Detecti	on Settings	INF: End Of Diagnostic Data Ropa	**			
		on oottango	INF. End Of Diagnostic Data Repor				
▼ IS1	001 Communication	Settings	MSG: 03/04/2021 16:54:24.340 Dire	ect Communication Channel To Reade	r Closed		
		go					
▼ IS1	▼ IS1001 Memory Settings						
▼ IS1	001 Reports		RAT1				
	MSG: 03/04/2021 16:54:42.680 Attached Reader Type: IS1001						
▼ IS1	1001 Diagnostics		<			>	
Bluetooth: M	icroLogger.0341 [34.81.F4.44.	.25.05]					



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Document History

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1 Software Overview

1.1 Product Description

Device Manager is a communication and device managing program developed by Biomark. It is used to connect a computer quickly and easily to a Biomark reader or device. The primary functions of Device Manager are to allow the user to access the device's memory, configure reader or device settings, and download tag data to be displayed and exported.

Software features:

- Quick and easy connection to Biomark readers or devices
- Download reader or device tag memory for export into Microsoft Excel, Access, or text file
- Duplicate tag ID filtering using Tag Memory Manager
- Bluetooth compatible
- Hex/Dec tag ID converter
- Store real-time communication and tag data in a text file to a user-defined location

1.2 Software Download

The software is available to download via the Biomark website:

https://www.biomark.com/software-drivers

1.3 Updating Program

Ensure the PC running Device Manager is connected to the internet. On a weekly basis, Device Manager will automatically check for updates. Checking for updates can also be forced manually at any time by simply selecting **Help** > **Check for Updates**.

If an update is available, follow the prompts to update Device Manager. After the update has been installed, Device Manager will restart automatically.

If an update is not available, a pop-up window will indicate the Device Manager is up to date. Click the **OK** button to close the window.

2 Getting Started

2.1 Program Navigation

Upon starting Device Manager, the program will default to the **Device Manager** navigation tab. There are two navigation tabs to choose from located in the middle-left of the program window. Selecting these tabs will toggle between the primary function screens of the program.

 Device Manager – Provides Controls and Terminal windows specific to the connected reader or device for the purpose of adjusting settings. For more information, see section 3 Device Manager.



• **Tag Memory Manager** – Allows for downloading of the reader or device tag memory. The selected reader or device memory can also be cleared of all data from this screen. For more information, see section **4 Tag Memory Manager**.

Sicmark Device Manager v.1.2.9	- 0
File Tools Help	
Communication: Peeder: BLE Data Losponr /151001 Serel Pot: Padees: 105.254.170.30 Pot R: 10001	Biomark .
Device Manager Tag Memory Manager	
BLE Data Logger / IS1001 INX8 Signal Leve • BLE Data Logger Settings InX8 Signal Leve • IS1001 Reader Settings Anster Act. • IS1001 Reader Settings Active Alarmat	rel: 170 mV (194) 26.0 C sent: N/A inve: N/A
IS1001 Antenna/Detection Settings INF: End Of Full: RED IS1001 Communication Settings INF: Start of Dia Start of Dia	Status Report igmostic Data Report
IS1001 Memory Settings Operation Hoder Detection Count Tags In Memory:	Scan er: 18 7861 (99%)
IS1001 Negotio Input Voltage: IS1001 Diagnostics IS1001 Diagnostics Antenas Tuning: Antenas Current Tuning Capesito Tuning Phase:	In pendoy: e3 (314) 33.6 V : 11.9 V : Tuned : 2.2 Å xrst 300 401
Tuning Relative FTOB Signal Lev Temperature: Syme. Input Free Sec. Master Act. Active Alarms: Tage Memory Full LINF: End O Diagn	: Phase: 0 rei: 282 mV (314) 26.8 C sent: N/A ive: N/A il ostio Data Report
M56: 03/04/2021 1 RATI M56: 03/94/2021 D	6:54:24.340 Direct Communication Channel To Reader Closed
	Semark Device Manager v.1.2.9 Ref Cosh Help Communication Peder: BLE Data Logger / IS1001 Peter 10023 Peter: 1002341 D431 F4 425163 Peter: 10023 Peter: 1002341 D431 F4 425163 Peter: 10023 Peter: 1002 Peter: 100 Peter: 100

The Menu Bar consist of three drop-down menus:

- File Select Exit to close the program.
- **Tools** This menu contains utilities, sub-menus, and settings that are used on an infrequent basis. Some utilities and application settings may only apply to a specific reader or device selected in the **Communication** window.
 - Tag ID Converter Select to convert a single ISO tag code from Hexadecimal format to Decimal format or vice versa. Type or paste into either field to convert to the corresponding format. A warning is displayed under each field if the code does not match any known ISO format.

Tag ID Converter			×
Type ID into either field to conve	ert		
HEX ID: Example: 3D9.236B43BD15	<>	Decimal ID: Example: 985.152123456789	
		X Close	



 Network Device Discovery – Select to establish an Ethernet communication port connection with supported Biomark devices. If the selected reader or device has this capability, refer to section 5.1 Network Device Discovery for more information.

Note: Connection to the reader or device must be closed to use Tools > Network Device Discovery or modify Tools > Settings.

- Settings Select to access and change the Application, Communication, and Terminal settings of Device Manager. Check the specific reader or device user manual to determine if setting changes are required. For more information on Communication and Terminal sub menus see section 5.2 Settings. Configure the Application Settings below before making a connection with a reader or device:
 - Date/Time Format Use the drop-down box to select the correct date/time format for downloaded records and exported data files from the selected reader or device.
 - Capture File Path Configure this path to specify the destination of saved communication data in the Terminal window when the Capture to File box is checked. The data is automatically stored in DeviceMan.txt, an ASCII text file. This path setting also applies to the Terminal section of the Live Diagnostics window used with the IS1001 and IS1001 Master Controller. See section 3.3 Live Diagnostics window for more information. Data captured by the terminal interface of the Live Diagnostics is stored in DeviceMan_LiveDiags.txt, an ASCII text file.
 - Display Raw Communication with Reader Checkmark this box if raw data from a reader or device should be displayed in the Device Manager Terminal window. This setting only applies to specific readers such as the BLE Data Logger / ASR650.

B	omark Device Manager - S	ettings				×
			Application Setting	S		
	Communication	Date/Time Format: Capture File Path: Display Raw Con	MM/DD/YYYY C:\Users\carsoant\OneDrive munication With Reader	✓ Merck Sh	Browse]
	Save			×	Cancel	



• **Help** – Used to manually **Check for Updates** of the Device Manager application and **About** to display the version information of Device Manager.

2.2 Device Setup and Connection

To setup a connection to a reader or device, select the appropriate settings within the **Communication** window.

S Biomark Device Manager v.1.2.9	– 🗆 X				
File Tools Help					
Communication:					
Reader: BLE Data Logger / IS1001 V					
Serial Port: COM3 Intel(R) Active Management Technology V 👔 Refresh 115200 V Open	Biomark				
IP Address: 169.254.38.144 Port #: 10001 Connect	SPECIALISTS IN IDENTIFICATION SOLUTIONS				

- **Reader** Select the reader or device type. A **Generic** reader option is available to provide some flexibility connecting to other devices. Refer to section **5.2 Settings** if additional **Serial Port** or **TCP/IP** settings need to be configured.
- Serial Port To achieve communication, select the appropriate information using the steps below:
 - Select the communication method by which your reader or device is connected to the PC. All available COM ports should be displayed when the drop-down box is selected. If a COM port is missing, press the **Refresh** button to the right of the drop-down box.
 - If establishing a RS-232 connection, select the computer's RS-232 port or the COM port assigned by the computer to the USB-to-Serial adapter. Serial port information might vary between computers.
 - If establishing a USB connection, select the COM port assigned to the reader or device. For example: COM4 Silicon Labs CP210x USB to UART Bridge.
 - Select the appropriate baud rate for the reader or device in the drop-down box to the left of the **Open** button. This information will autofill depending on the chosen reader or device but can be adjusted if needed.
 - After all information has been entered, select the **Open** button to establish a connection to the chosen reader.

Note: The connection to the reader or device must be closed to modify the serial port settings. Not all reader or devices require a baud rate to be entered during setup. The HPR Plus is a nonserial device and does not need a specific baud rate selected to successfully communicate.

Bluetooth – If your reader supports Bluetooth connectivity, establish a connection by pressing the Bluetooth devices button located to the right of the Serial Port drop-down box.

To establish communication, please follow the steps below:

- Power up the device
- Start the Device Manager communication program
- Search for available reader or devices by clicking on the Bluetooth devices button within the main window of Device Manager. The Bluetooth Connection Utilities window will appear and start searching for Bluetooth devices. To only show devices



currently active and within range of computer, select the **Show In-Range Devices Only** box.

Biomark Device Manager v.1.2.9				- 🗆 X
File Tools Help				
Communication: Reader: BLE Data Logger / IS1001 V				
Serial Port: COM3 Intel(R) Active Management Technology ~	Refresh 1	115200 V Open	Bion	iark 🔛
IP Address: 169.254.170.30	Port #: 10001	Connect	SPECIALISTS IN IDENTIF	ICATION SOLUTIONS
Device Manager Tag Mer Biomark Device Manager	r - Bluetooth Connectio	on Utilities	- 0	×
Controls: Connecting to Blueton	th device		Show In-Range Device	es Only
BLE Data Logger / IS1 V BLE Data Logger Settin V IS1001 Reader Settings V IS1001 Antenna/Detect	MicroLogger.0341	34.81.F4.44.25.05	Authenticated, Connected	
 IS1001 Communication IS1001 Memory Setting: IS1001 Reports IS1001 Diagnostics 	MicroLogger.0939	34.81.F4.C2.23.CE	Authenticated, Not connected	
Searching for Bluetouth de Device Name: MeroLog Device Name: MeroLog Device Address: 3491F Paring with Bluetouth dev MeroLogger 0341 is pai Authenticating Bluetouth d MicroLogger 0341 is pai Connecting to Bluetouth d Connected to MicroLogg	evices ger.0341 t442505 ice red evice peritoated evice per.0341			v
	Status Repo Store VIT T Diagnostics: Input Volta INF: End Of F	rts Memory Count: o Memory: ge: ull Status Report	177 Enabled 23.8V	
Connection Closed	<			>

 Select the appropriate reader or device from the list. The program will begin pairing with the targeted Bluetooth reader or device. When successfully connected, the Bluetooth Connection Utilities box will display "Connected" next to the reader or device's name.

Note: If the Bluetooth reader or device will not connect via Biomark Device Manager program, refer to the reader or device's user manual for more specific information.

3 Device Manager

The **Device Manager** tab provides access to easily alter the settings of the connected reader or device as well as adjust the formatting of the data displayed and exported in the **Tag Memory Manager** tab. The reader or device selected will automatically determine the accordion drop down boxes within the **Controls** window.



3.1 Controls Window

The **Controls** window lists the type of reader or device currently connected to Device Manager and associated settings available for adjustment. Each reader or device will have different

settings depending on its type and features. Select the update settings refresh arrows stopoll the attached device and update the display of all associated settings.

Concession of Street, or Street,						
e Too	ls Help					
ommunic	ation:			Update Settings		
ader:	BLE Data Logger / IS1	1001	~	-prote county		
rial Port:	MicroLogger.0341 [34	.81.F4.44.25.05]	Y	Befresh 115200 V Close	Bior	nark
Address	169.254.170.30			Port #: 10001 Connect		
					SPECIALISISINIDEN	IPICATION SOLUTIONS
Device	Manager Tag	Memory Mar	nager			
Controls:			-	Warning! Tag detections will not be stored into BLE Dat	a Looper memory while 1\$1001 settings or a	samostics are displayed
BLE	Data Longer /	1\$1001	0	Terminal:		NAME AND ADDRESS OF A DEC.
ULL	. Data Logger /	131001				Scroll Down Capture to
V BL	E Data Logger S	ettings	í literatur (Memory:		
	00			Tags Memory Size:	7864	
▲ IS	1001 Reader Set	tings		Store Tags To Memory Size:	Enabled	
			_	Store VIT To Memory:	Enabled	
Sel	t IS1001 Reader Date/Tir	me From Computer	llock	Store Stat. Reports To Memory:	Enabled	
				Reports:		
Reader	Operation Mode:	Scan	~	Auto Noise Report Delay:	Disabled	
		1		Auto Status Report Delay:	60 min	
Header	ID:	1	Set	Diagnostics:	10	
Reader	Reeper		Enabled	Tage In Memory:	7861 (998)	
10000	beeper.		Lindured	Status Reports In Memory:	63 (31%)	
Reader	Tag ID Display Format:	HEX	~	Input Voltage:	23.6 V	
				Exciter Voltage:	11.9 V	
Exciter !	Sync. Mode:	Master	~	Antenna Tuning:	Tuned	
Auto Sta	andby or 10	A 10 A	1 04	Antenna Current:	2.2 A	
Voltage	s: 0ff: 16	• Un: 19 •	Set	Tuning Capacitors:	402	
Periodic	Standby Start Time:	00:00:00	Set	Tuning Relative Phase:	-1	
- crivers	i bianaby bian inne.			FDXB Signal Level:	310 mV (34%)	
Periodic	Standby Duration:	00:00:00	Set	Temperature:	27.5 C	
			a manual	Sync. Input Present:	N/A	
Idling Ti	me in Milliseconds:	0	Set	Sec. Master Active:	N/A	
-	11-1-1-1		Indete	Active Alarms:		
rimwan	e Update:		update	INF: End Of Full Statue Report		
Reset T	o Factory Default Parame	ters:	Reset	Int. End of Full Soucus Report		
				MSG: 03/04/2021 17:30:37.190 Dire	ct Communication Channel	To Reader Closed
V IS	1001 Antenna/De	etection Setti	nas			
			5	cdc		
V IS	1001 Communica	tion Settings		MSG: 03/04/2021 17:30:37.840 Dire	ct Communication Channel	To Reader Opened
		5		MSG: 03/04/2021 17:30:37.840 Type	Ctrl + QUIT To Close	
V IS	1001 Memory Set	ttings				
				, <		>

- To change a setting, expand the appropriate accordion tab to reveal the specific settings.
 - Most settings are configured with a single button; however, some settings will require a value entry. When changing such settings, press the **Set** button after entering the desired value. The command and the reader response appear in the **Terminal** window.
 - The **Controls** window may not list every setting available for every device or reader. Refer to the reader or devices manual for available settings.

3.2 Terminal Window

This window allows users to enter specific commands to the connected reader or device to adjust settings or display information. Clicking within the **Terminal** window will change the background



from white to yellow indicating it's actively in focus and ready to receive command entries via keyboard.

• When changing a setting using the **Controls** window, the command and the reader or device's response will appear in the **Terminal** window for supported readers or devices. For example, with an IS1001 reader connected to Device Manager, entering the command **RIS01** via the keyboard into the **Terminal** window will result in the reader's response:

MSG: 01 03/15/2021 14:28:52.660 Reader ID Set To 01

If a setting is changed by manually typing commands into the **Terminal** window, refresh the settings displayed in the accordion drop-down boxes by selecting the refresh arrows located in the top bar of the **Controls** window.

Note: The commands list for any specific device or reader are listed in the equipment specific manual.

- Scroll Down When this box is checked, the Terminal window will automatically scroll down as information is entered, exceeding the Terminal window size.
- Capture to File When this box is checked, any information entered into the Terminal window, including settings adjusted using the Controls window, will automatically be recorded in the DeviceMan.txt file. This file will be written to the destination defined in the Tools > Settings > Application > Capture File Path setting.
- The DeviceMan.txt file is appended to continuously, if the file name remains unchanged. Information will never be overwritten, instead additional information will be added to the end of the file.
- If the original DeviceMan.txt file is renamed or deleted and the **Capture to File** box is checked, a new DeviceMan.txt file will be created.

3.3 Live Diagnostics Window

The live diagnostics function of Device Manager program acquires a status report from the supported reader or device, such as IS1001, IS1001-MC, etc., on a continual basis and displays the output graphically. This provides an easy-to-read presentation of the reader or device's diagnostic data in real time. The **Live Diagnostics** window is configurable and provides the ability to save diagnostic charts.

The Live Diagnostic window has a terminal window interface which functions similarly to the Terminal window within the Device Manager tab. When the Capture to File box is checked, Device Manager begins automatically storing data displayed in the Terminal window in text file named DeviceMan_LiveDiags.txt located in the Capture File Path directory. See section 2.1 Program Navigation for instruction on configuring this file path.



	▶ II Connected	IS1001 FDXB Signal Level	😑 C 🕸
ause	Reader ID 01 Operation Mode Master Sync. Input NiA Exciter Level 1 Piput Voltage 25 SV Exciter Level 1 Exciter Voltage 19 V Exciter Level 1 Passe 401 Relative Phase 0 FDXD State Level 20 mV Temperature 27 8 C		Save Reset Chart Settings
	Tennul Tuning Phase: Tuning Relative Phase: FURB Signal Level: Sync. Ipput Lesent: Sync. Ipput Lesent: Active Alarma: Tags Hency Full INF: End Of Diagnostic Data Rep	401 0 282 mV (314) 27.8 N/A N/A	Soret Down Capture to File

• To configure chart settings, select the settings icon in upper right corner of window. Use the **Live Diagnostics Settings** window to specify how your charts will be generated. Select **Save** after configured.

S Live Diagnostics	Settings	×
Chart Settings:		
Update Period:	100 🚔 ms	
Buffer Length:	300 🔹 sec	
	Save	Cancel

- **Update Period** specifies how often a new data point is added to the chart.
- Buffer Length specifies the maximum number of data points used in a chart. When the limit is reached, the program will remove the oldest data point and add the most recent data point.
- Select one of the eight charts to be displayed in the diagnostic window's left pane.
 Use the chart icons at upper left and right of Live Diagnostic window to Pause,
 Connect, Save, and Reset charts.

4 Tag Memory Manager

The **Tag Memory Manager** tab provides the ability to download or clear a reader's or device's tag memory with the click of a button. Once downloaded, data may be displayed, filtered, and exported to MS Excel, MS Access, or text file.

4.1 Downloading Data

• Use the **Download** Tags button within the **Tag Memory Manager** tab to download the connected reader's or device's tag memory. Please note that this can take several minutes,



depending on the number of records to be downloaded. A **Start Memory Download** window provides the ability to select the download parameters before starting the download process.

Start Memory Download	×
Select Download Parameters:	
Download Duplicate Tag IDs	
Download Test Tags	
Start Download	Cancel

- Select Download Parameters:
 - Download Duplicate Tag IDs If checked, the program will download and display all tag records contained in the reader or device's memory. If unchecked, the program will only display non-duplicate tag records.
 - Download Test Tags If checked, the program will download and display test tags contained in supported reader's or device's memory.
- Select Start Download to begin the tag memory download process. Upon successful completion, a Download complete notification window will appear containing the total number of tag IDs and test tags successfully download, and how many of the downloaded tag IDs were duplicates.
- To stop a tag download process before it is complete, select **Cancel**.



Communicat	ion:										
eader:	sder: BLE Data Logger / IS1001 v										
erial Port:	MicroLogger.034	1 [34.81.F4.44.25.0	5] 🗸 🗸	Refr	resh 115200	 ✓ Close 		ВЮ	orn	ar	
Address:	169.254.170.30			Port #:	10001	Connect		SPECIALISTS I	N IDENTIFICA	TION SOLUT	ONS
Device	Manager	Tag Memory	Manager								
↓ D	ownload Tags	BLE	Data Logge	r Memory	Operations	5				🛕 Erase	BLE Data Logger Memory
Scan Date	Scan Time	Download Date	Download Time	Reader ID	Antenna ID	HEX Tag ID	DEC Tag ID	Temperature,C	Signal,mV	Is Duplica ^	Barrana Dankardan
2/11/2021	18:37:20.420	03/05/2021	09:36:31	01		3DD.003C065668	989.001007048296		116		Inteniove Dupicates
2/11/2021	18:38:10.410	03/05/2021	09:36:31	01		3E7.0000001D01	999.00000007425		257		
2/12/2021	00:14:11.040	03/05/2021	09:36:33	AC		3E7.0000001DAC	999.00000007596		258		Remove Test Tags
1/01/2016	6 00:00:01.330	03/05/2021	09:36:33	11		3E7.0000001D11	999.00000007441		306		Columns Filter:
3/02/2021	10:00:06.520	03/05/2021	09:36:33	AC	Memory Down	oad	×		417		Scan Date/Time Download Date/Time ReaderID ArtennaID
2/11/2021	18:37:20.420	03/05/2021	09:36:43	01					116	Yes	
2/11/2021	18:37:20.480	03/05/2021	09:36:43	01	Dow	nload complete.			365	Yes	
2/11/2021	18:37:20.540	03/05/2021	09:36:43	01	Downloaded tag IDs: Total: 390 Test Tags: 606				506	Yes	 ✓ HEX Tag ID ✓ DEC Tag ID ✓ Temperature ✓ Signal Level ✓ Is Duplicate
2/11/2021	18:37:20.570	03/05/2021	09:36:43	01					538	Yes	
2/11/2021	18:37:20.600	03/05/2021	09:36:43	01		Duplicates: 390			560	Yes	
2/11/2021	18:37:20.630	03/05/2021	09:36:43	01	Add	ed to the list: ital: 390			559	Yes	GPS Coordinates
2/11/2021	18:37:20.660	03/05/2021	09:36:43	01	Test Tags: 303 Duplicates: 390				540	Yes	✓ File Name
2/11/2021	18:37:20.690	03/05/2021	09:36:43	01					535	Yes	
2/11/2021	18:37:20.720	03/05/2021	09:36:43	01					548	Yes	
2/11/2021	18:37:20.750	03/05/2021	09:36:43	01			OK		551	Yes	
2/11/2021	18:37:20.780	03/05/2021	09:36:43	01		300.0030065668	989.001007048296		548	Yes	Export to MS Excel
2/11/2021	18:37:20.810	03/05/2021	09:36:43	01		3DD.003C065668	989.001007048296		557	Yes	
2/11/2021	18:37:20.840	03/05/2021	09:36:43	01		3DD.003C065668	989.001007048296		564	Yes	New worksheet for each file
2/11/2021	18:37:20.870	03/05/2021	09:36:43	01		3DD.003C065668	989.001007048296		579	Yes	Front to MS Annan
2/11/2021	18:37:20.900	03/05/2021	09:36:43	01		3DD.003C065668	989.001007048296		588	Yes	Export to M5 Access
2/11/2021	18:37:20.930	03/05/2021	09:36:43	01		3DD.003C065668	989.001007048296		593	Yes	
2/11/2021	18:37:20.970	03/05/2021	09:36:43	01		3DD.003C065668	989.001007048296		594	Yes	Export to Text File
2/11/2021	18:37:21.000	03/05/2021	09:36:43	01		3DD.003C065668	989.001007048296		588	Yes 🗸	

4.2 Erase Memory

Erase Reader Memory – Deletes the memory of the connected device, erasing all tag ID records. A confirmation window will appear if this button is selected to verify this is the desired action.

Note: If erasing memory of a BLE Data Logger from within the Tag Memory Manager tab, an Erase Logger Memory box will be displayed. Proceeding will erase all tag memory from the BLE Data Logger but not from the attached reader. To erase the reader's memory, use the Memory Settings accordion of the Device Manager tab. Select Erase Entire Memory option and confirm to proceed with erase process.

4.3 Exporting Data

Downloaded data displayed in the **Tag Memory Manager** tab can be altered before being exported. Use the options below to edit data as needed. Removing duplicates and removing test tags functions require confirmation to proceed.

- **Remove Duplicates** Removes all duplicate tag ID records from the **Tag Memory Manager** list leaving only the first detection of each recorded tag ID.
- Remove Test Tags Removes all test tag ID records from the Tag Memory Manager list.
- Column Filter Selects which tag record ID fields are displayed in the Tag Memory Manager list. Unselected columns/fields and associated data will not appear in exported MS Excel, MS Access or text files.



Note: When exporting tag ID records to any file format, be aware that newly downloaded information will not be automatically reflected in previously exported files. If new tag records are downloaded from a reader or device AFTER a Tag Memory Manager list is exported, a new export will be required to record these new tag ID records in a file.

- **Export to MS Excel** Creates an Excel-formatted file containing all tag ID records displayed in the **Tag Memory Manager** list. When selected, a prompt requesting a storage path and file name will be displayed.
 - For readers which contain multiple tags ID record files, the New Worksheet for Each File option checkbox allows for each reader file to be exported into separate Excelformatted files.
- **Export to MS Access** Creates an Access-formatted file containing all tag ID records displayed in the **Tag Memory Manager** list. When selected, a prompt requesting a storage path and file name will be displayed.
- Export to Text File Creates a text-formatted file containing all tag ID records displayed in the Tag Memory Manager list. When selected, a prompt requesting a storage path and file name will be displayed.
- **Clear List** Deletes all information currently in the **Tag Memory Manager** list. This function requires confirmation to proceed.

4.4 Console Mode for Pocket Reader & Pocket Reader EX Readers

The Pocket Reader and Pocket Reader EX readers require the reader to be in Console Mode to successfully download stored tag data. Device Manager automatically transitions the readers into Console Mode when **Download Tags** is selected. The reader will remain in Console mode until the download is complete and will automatically exit Console Mode and return to normal operation.

5 Tools

The Tools menu contains utilities, sub-menus, and settings to configure connections. Some utilities and application settings only apply to specific readers or devices selected in the **Communication** window.

The **Tag ID Converter** utility, described in section **2.1 Program Navigation**, can be used with or without an active reader or device connection. The **Network Devices Discovery** utility and **Settings** may only be accessed or modified when no active connection to a reader or device is established.

5.1 Network Devices Discovery

The **Network Devices Discovery** utility is used to establish a TCP/IP connection over Ethernet network or cable with supported Biomark readers or devices such as the IS1001 and Master



Controller (MC). If the reader or device is supplied with this connectivity option, it can be configured to allow remote interaction over a local area network or a remote network.

Note: Biomark devices and readers incorporate Lantronix XPort Ethernet modules. For additional information see the Lantronix XPort User Guide available at: <u>https://www.lantronix.com/pdf/XPort_UG.pdf</u> or refer to the Biomark reader's or device's user manual.

- Connect the reader or device to a local area network with an available Dynamic Host Configuration Protocol (DHCP) server using a CAT5 or greater Ethernet cable (not supplied). With the PC attached to the same local area network, start the Device Manager program and select the supported reader or device from the **Reader** drop down box located in the **Communications** window.
- Select Tools > Network Device Discovery and Network Device Utility will begin searching the network for Lantronix products (Biomark reader and devices uses a Lantronix XPort Ethernet module) and will display the IP addresses of the devices it finds. If there are multiple readers or devices on the network use the MAC address of the reader's Ethernet module to help identify each one.

Biomark Device Manager - Network Devices Utility			×	
Network Devices:				
	Device: xPort-03/04			
······································	Device:	xPort-03/04		
	Device Family:	xPort		
	Device Type:	Embedded Device Server	Window	
	Device Class:	CobOS.XPort.XPortExDevice		
	Tunnels:	1		
	MAC Address:	00-20-4A-CA-AA-44		
	IP Address:	169.254.84.227		
	Serial Number:	FF.00.00.00		
	Terminal Port:	10001 Connect		
Search		a	ose	

- Select the desired reader or device and then click the **Connect** button to make a connection. If you receive an error when attempting the connection, make sure the Device Manager communication parameters are configured as follows:
 - IP address = the reader's or device's IP address
 - Terminal Port = 10001
 - If needed, check Communication TCP/IP settings, see section **5.2 Settings**.

5.2 Settings

The **Settings** window contains sub-menus and settings to configure the connections to a device or reader. The three sub-menus are described below.

Biomark

- Application Settings This is used to edit the Date/Time Format, Capture File Path, and Display Raw Communication with Reader Data. Refer to section 2.1 Program Navigation as they need to be configured before making a connection to a reader or device.
- Communication This window provides access to additional settings to configure the communication with a reader or device. Specific readers or devices may require modifications to the Serial Port or TCP/IP settings to make a connection. After making adjustments, use the Terminal window to confirm the connection of the reader or device. For example, most Biomark devices and readers will reply with a list of available commands when the question mark (?) is issued followed by pressing Enter.

Below are terminal settings within the **Communication** window:

- Send Line Ends with Line Feeds Checkmark this box to issue a line feed after every line that Device Manager sends, if the reader or device requires it, or if Echo Typed Characters Locally is enabled.
- **Echo Typed Characters Locally** Checkmark this box to display each character typed on the keyboard instead of depending on the host to echo each character. Remove the checkmark from this box if characters are unnecessarily repeated.



- **Serial Port** Adjust the serial port settings of the PC to match those required by the connected reader or device. Most Biomark devices and readers, by default, are configured as follows:
 - Parity: None
 - o Data Bits: 8
 - Stop Bits: 1
 - Flow Control: None

Click the **Save** button to apply changes.

Biomark Device Manager -	Settings		×		
Application	Communication: Serial Port				
Serial Port	Parity: O Even O Mark None O Odd Space	Data Bits: ● 8 ○ 9			
	Stop Bits: ○ 0 ● 1 ○ 1.5 ○ 2	Flow Control: None RTS/CTS XOn/XOff RTS/CTS + XOn/XOff DTR Enabled RTS Enabled 			
Save		Cance	el		



- **TCP/IP** Biomark readers or devices equipped with Lantronix XPort modules may be secured by password and/or encrypted communication. For Device Manager to interact with these devices or readers, use the **TCP/IP** section of **Settings** window:
 - **Channel 1 Password Enabled** Checkmark this box and supply the password configured on the device or reader.
 - **Channel 1 AES-256 Encryption Enabled** Checkmark this box and supply the AES-256 Encryption key configured on the device or reader.

Note: For more information on configuring passwords or using AES-256 encryption on the Lantronix XPort module, refer to the Lantronix XPort User Guide available at: <u>https://www.lantronix.com/pdf/XPort_UG.pdf</u> or refer to the Biomark reader's or device's user manual.

Biomark Device Manager - S	Settings	×				
Application	Communication: TCPIP	Communication: TCPIP				
Serial Port	Channel 1 Password Enabled Password: Channel 1 AES-256 Encryption Enabled AES-256 Encryption Key: 00-00-00-00-00-00 00-00-00-00-00-00 00-00-00-00-00-00 00-00-00-00-00-00 00-00-00-00-00-00 00-00-00-00-00-00 00-00-00-00-00-00 Generate New Random Key					
Save		Cancel				

Click the **Save** button to apply changes.

• **Terminal** – Use this window to **Choose Font** and **Set Default Font** of the Terminal window in Device Manager.







www.biomark.com biomarkservice@merck.com