#### How to obtain continuous the numerical data from the PB840 veretor

Katerina Vaporidi Department of Intensive Care, University of Crete, Greece vaporidi@uoc.gr How to obtain continuous the numerical data from the PB840 ventilator

- What is needed:
  - a laptop/desktop PC (windows not mac)
  - a connecting cale details follow)
  - -optionally a lock for the laptop

### **Connecting cable**

- Startech 1-Port USB to Null Modem RS232 DB9 Serial DCE Adapter Cable with FTDI Which you may find in this link: <u>https://www.startech.com/eu/wheretobuy/ICUSB232FTN</u>
- The cable comes with the laptop/desktop. Alternatively you may download the driver from this link (product support drivers [FTDI] Wndows USB to serial adapter.zip): https://www.startech.com/eu/Cards-Adapters/Serial-Cards-Adapters/USB-to-Null-Modem-RS232-DB9-Serial-Adapter-Cable-DCE-FTDI~ICUSB232FTN

### Desktop folder for the recording

- Create a Folder on your desktop – PROMIZING\_REC
- Paste in this folder the following files you will receive by e-mail:
  - hypertrm.exe
  - Hypertrm.dll
  - Command.txt

1 - 1 - PRO			ٽ ~
Όνομα	Ημερομηνία τροποποί	Τύπος	Μέγεθος
Command	13/10/2019 9:08 πμ	Έγγραφο κειμένου	2.219 KB
Nypertrm.dll	15/4/2008 3:00 µµ	Επέκταση εφαρμο	349 KB
😂 hypertrm	15/4/2008 3:00 µµ	Εφαρμογή	28 KB

PROMIZING ....

The hyperterminal is a tool that enables the communication between the computer and the ventilator, we got it from windows XP (in later versions Microsoft removed it)

## 1<sup>st</sup> use of hyperterminal

- Double click on hyperteminal icon Shypertrm
- You will be asked if you want to set the hyperterminal as the preselected program for telnet – select yes and not to be asked again
- Then you will be asked information about your location – do nothing and click ok
- Then you will be asked information about the call
   do nothing and click ok
- Finally you will be asked if you want to install a modem, click NO, and close.





#### One-time only setup of the ventilator



First correct the time and date if needed, then select the communication setup

#### **Current Communication Setup**



Configure communication setup like shown here: DCI – Baud Rate: 9600 – Data Bits: 8 – Parity Mode: None

#### Ventilator setup is complete

- These changes will be maintained after turning the ventilator off and on again
- They have no effect on ventilator function
- Remember to chang be time in March and October, for daylight saving time on/off

## Connecting the ventilator to the computer







## A desktop/ laptop can be placed behind the ventilator



Connect the RS232 cable on the COM port on the back of the 840 ventilator, and the USB on the computer. If security is a concern, a laptop lock can be attached on the ventilator



The computer can be very discreetly present in the back of the ventilator

### To start a new recording – step1

- Double click on hypertrm
   HyperTerminal icon
- You may be asked again if you want to connect a modem – click NO
- This screen will appear
- Use as name patient's PROMIZING ID

1	Connection	Descripti	on ?	×
New Co	nnection			
Enter a name ar	nd choose an ic	on for the con	nection:	
<				>
		ОК	Cano	cel

Click ok

### Step 2: Connection port

In the tab: **Connect using** any COM is ok, but if you see only TCP/IP the computer does not communicate with the ventilator. In this case, close and restart using another COM port on the ventilator and/or USB port on the computer. Make sure you have installed the cable driver on the computer.

Select any COM, and OK

	Connect To	? ×
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iter details for t	he phone number that you	u wa <mark>nt</mark> to dial:
Country/region:	Ελλάδα (30)	~
Area code:		
Phone number:		
Connect using:	COM4	~
2	ОК	Cancel

# Step 3: COM properties

In the dropdown panels select:

- In the first: 9600
- In the last (flow control): None
- OK

(Same settings as on ventilator)

Ιδιότη	τες: COM4	× ×
Ρυθμίσεις θυρών		
Bit ανά δευτερόλεπτο:	9600	, ,
Bit δεδομένων:	8	*
Ισοτιμία:	INone	*
Bit διακοπής:	1	~
flow control	None	~~
	Επαναφορά προ	επιλογών
ОК	Акиро	Εφαρμογή

#### Step 4: hyperterminal

• Now this screen opens up



#### Click on this icon



- Click on Settings
- Then click on ASCII Setup

onnect To Settings	←		
Function, arrow, an	id ctrl keys a	ect as	
Terminal keys	OW	indows keys	
Backspace key ser	nds		
● Ctrl+H ○ D	el 🔿 Ctr	1+H, Space, C	trl+H
Emulation:			
Auto	~	Terminal Se	tup
T-last	ANCI		
Teinet terminal ID:	ANSI		
Backscroll buffer lines	s: 500		-
Play sound when	connecting	or disconnecti	ng
		ASCII Se	tup

Make these changes here:

- Line delay: add 1000
- ASCII receiving
- Tick first line
- Unselect last line (remove tick)
- Press ok



#### Step 5: Create the file

• Select: Transfer, then select: Capture text

	PROMIZING ID - HyperTerminal
Ip (	

#### Select file name and location to save

- Select the Folder PROMIZING\_REC on desktop
- Use Patient's PROMIZING ID as file name

	Capture Text	? ×
Folder:	C:\Users\methmon.CLINICS\Desktop\fPRO	MIZING_REC
File:	.CLINICS\Desktop\ PROMIZING_REC\ID	Browse

#### Step 6: input the recording command txt

• Select: Transfer, select: Send Text File,

File Edit View Call Transfer   Help Image: Capture Text Image: Capture Text Image: Capture Text   Send Text File Image: Capture Text Image: Capture Text
Send File   Receive File   Capture Text   Send Text File
Send Text File
Capture to Printer

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<ul> <li>Νέος φάκελος</li> </ul>			
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ιφα 🖈 📄 Command3	7/12/2015 12:30 µµ	Έγγραφο κειμένου	1.758 KB
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#### Select the command text file and click OPEN

#### That's it!

 If the recording has started properly the screen should look like this, with lines added approx. every second.



#### How to complete a recording

- The txt files will obtain recordings for days.
- At the end of this period the recording will stop.
- Select: File, select: Save
- The file should be saved at the selected folder.
- It is ok if you do this well after the end of the recording, as long as you don't shut down the computer before.
- If the patient is disconnected from the ventilator or for any other reason you want to stop the recording, you need to click on the icon to disconnect. Then select file and save and it's done.

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	File Edit View Call Transfe	er Help		
New Connection	🗧 🖰 🗅 🔏 🍘 🗧			
Open				
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If you have any questions or problems with the connection please contact me:

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