

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

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

- What is needed:
  - a laptop/desktop PC (windows not mac)
  - a connecting cable (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:

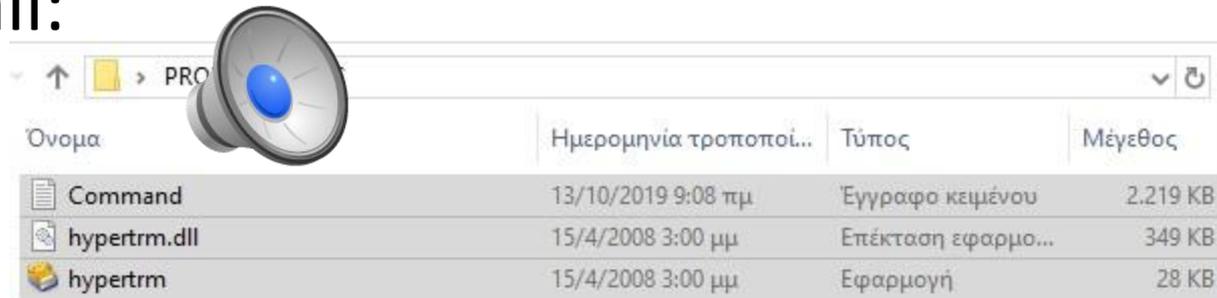
<https://www.startech.com/eu/wheretobuy/ICUSB232FTN>

- The cable comes with a  on CD which you need to install in the laptop/desktop. Alternatively you may download the driver from this link (product support – drivers – [FTDI] Windows 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>

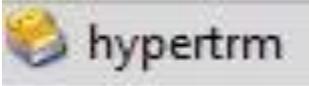
# Desktop folder for the recording

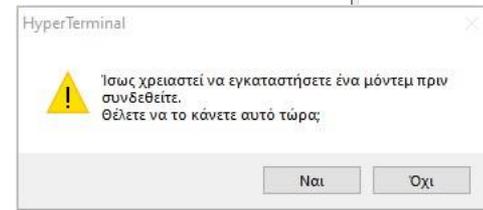
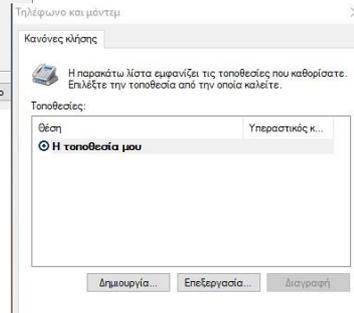
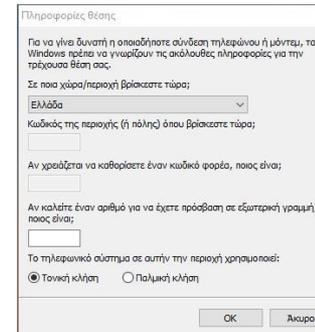
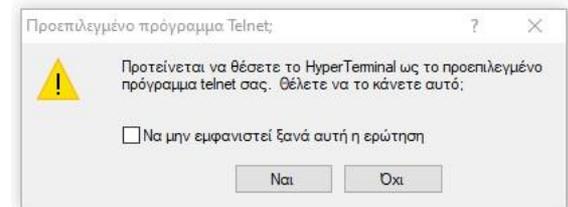
- Create a Folder on your desktop
  - PROMIZING\_REC
- Paste in this folder the following files you will receive by e-mail:
  - hypertrm.exe
  - Hypertrm.dll
  - Command.txt



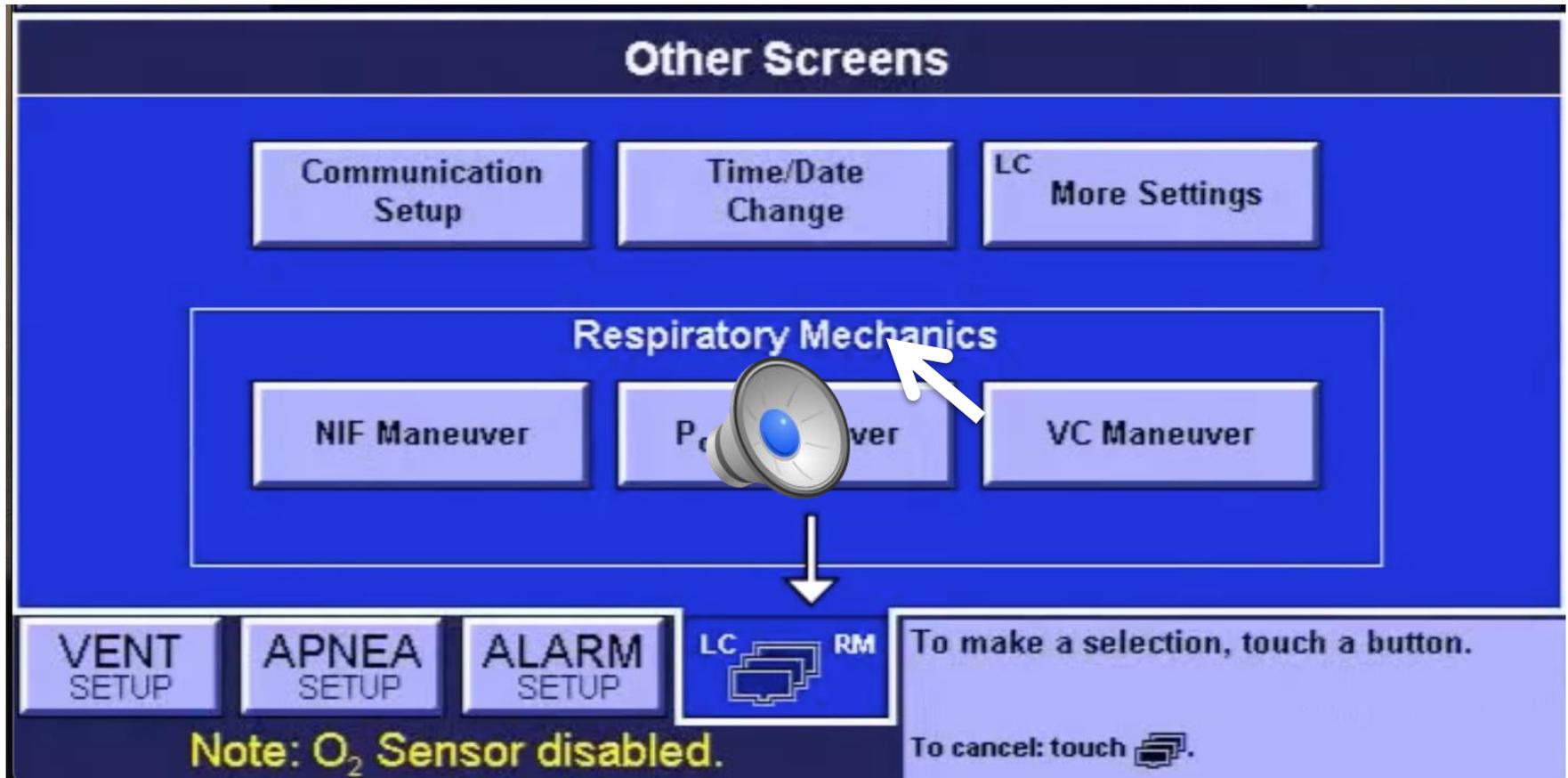
The hyperterminal is a tool that enables the communication between the computer and the ventilator, we got it from windows XP (in later versions Microsoft removed it)

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

- Double click on hyperterminal icon 
- 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



1	2	3
<b>DCI</b>	<b>DCI</b>	<b>DCI</b>
Baud Rate <b>9600</b>	Baud Rate <b>9600</b>	Baud Rate <b>9600</b>
Data Bits <b>8</b>	Data Bits <b>8</b>	Data Bits <b>8</b>
Parity Mode <b>None</b>	Parity Mode <b>None</b>	Parity Mode <b>None</b>



VENT  
SETUP

APNEA  
SETUP

ALARM  
SETUP



Adjust settings as needed.

**Note: O<sub>2</sub> Sensor disabled.**

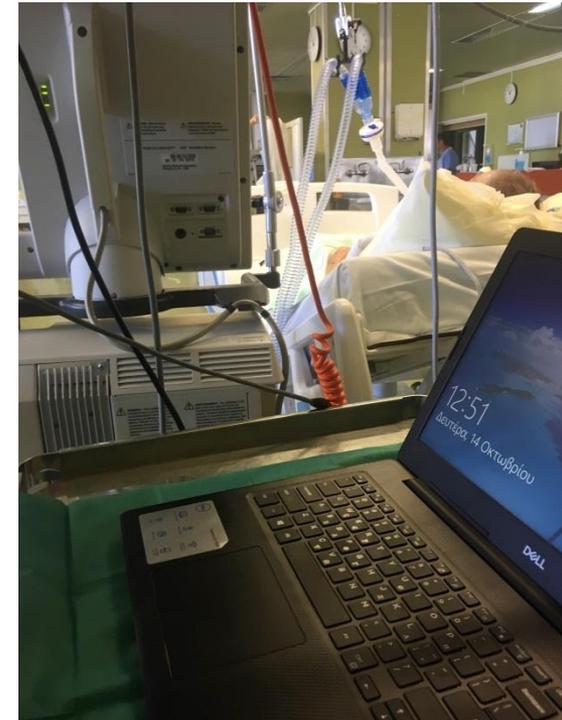
To cancel: touch .

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

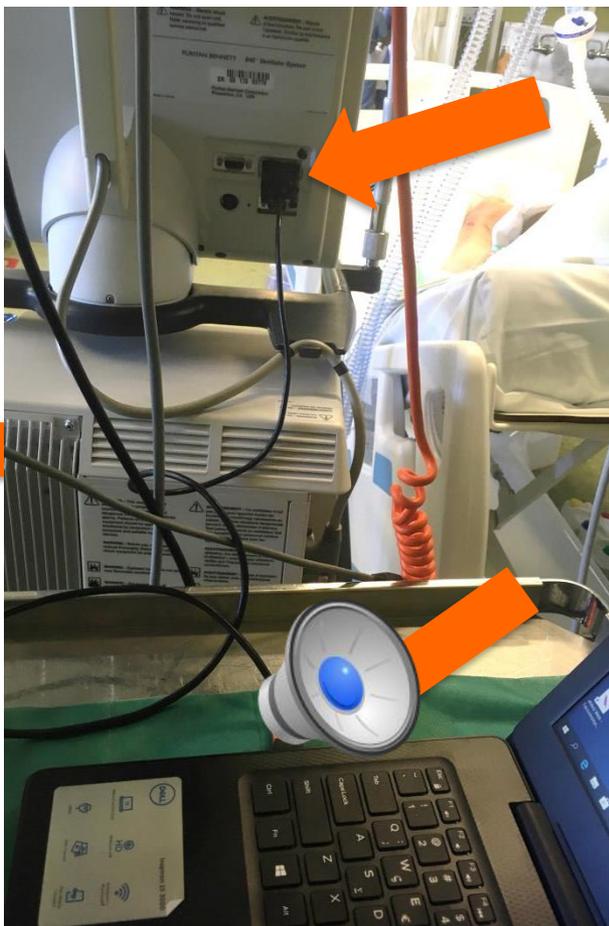
# Ventilator setup is complete

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

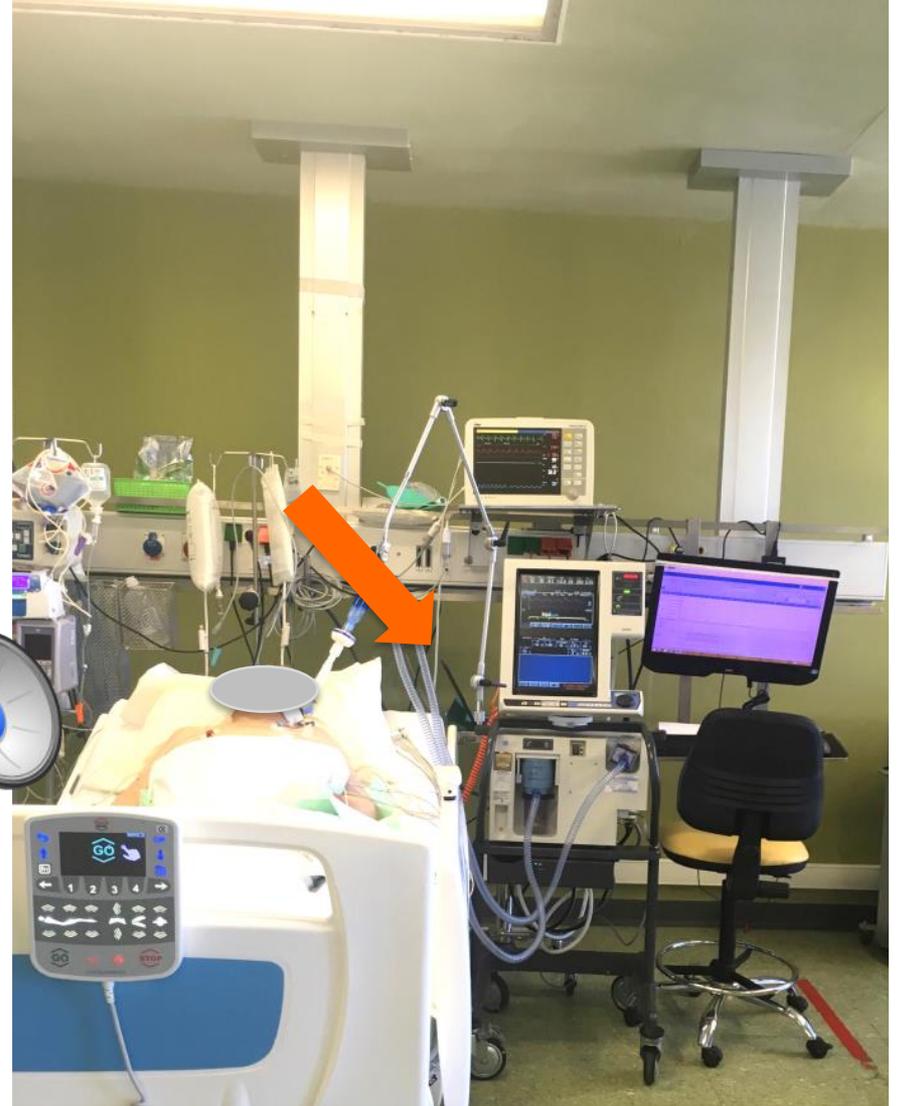
# Connecting the ventilator to the computer



A desktop/ laptop can be placed behind the ventilator



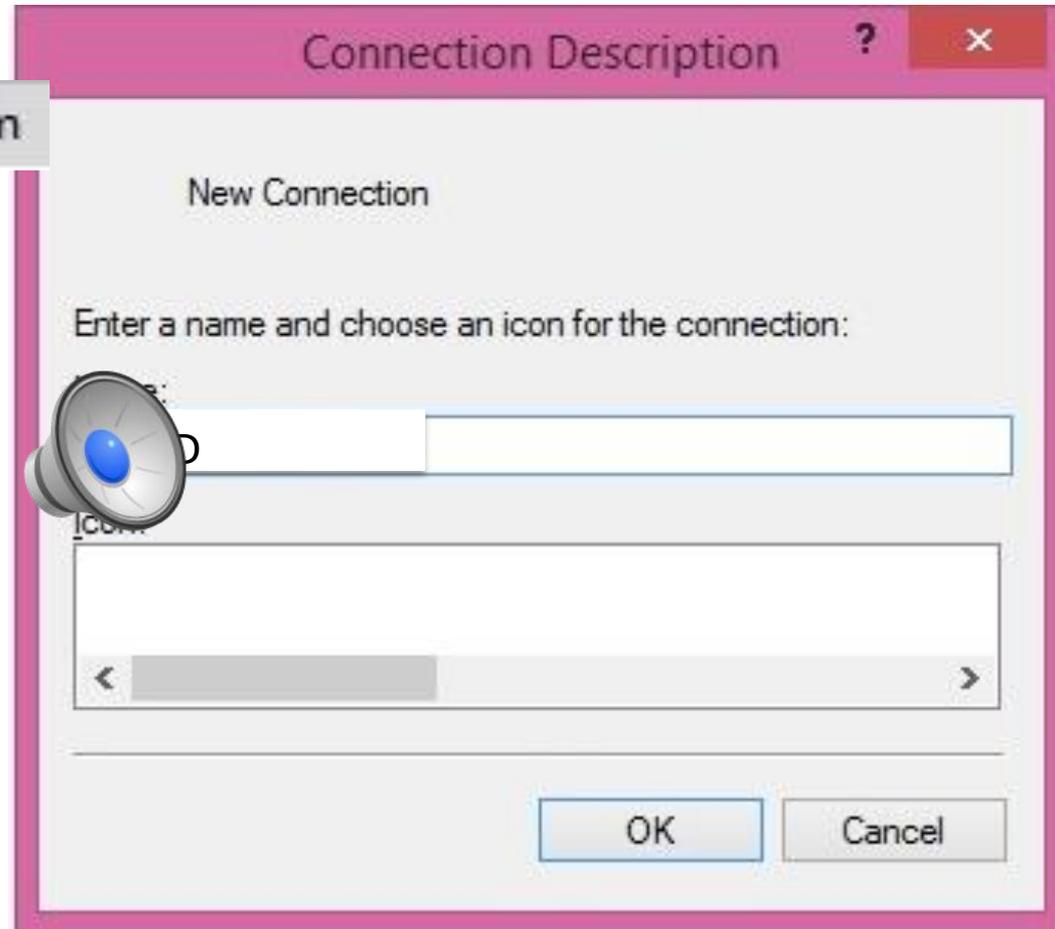
Connect the RS232 cable on the COM port on the back of the 840 ventilator, and the USB on the computer. If security is a concern, a laptop lock can be attached on the ventilator



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
- 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

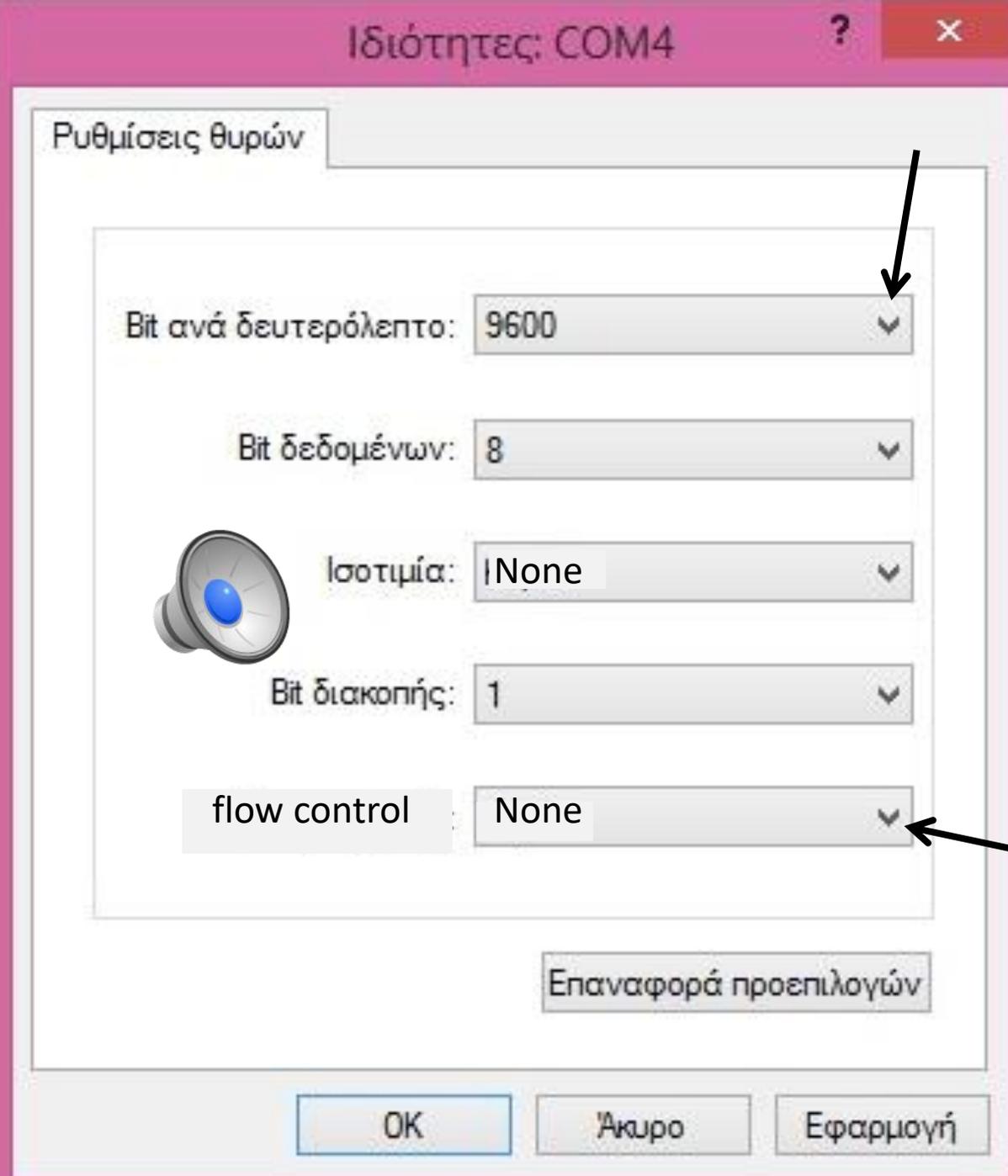
A screenshot of the 'Connect To' dialog box in Windows. The title bar is pink and contains the text 'Connect To', a question mark icon, and a close button (X). The main content area is white and contains the text 'onoma-asthenous' at the top. Below this, there is a prompt: 'Enter details for the phone number that you want to dial:'. There are four input fields: 'Country/region:' with a dropdown menu showing 'Ελλάδα (30)', 'Area code:' with an empty text box, 'Phone number:' with an empty text box, and 'Connect using:' with a dropdown menu showing 'COM4'. At the bottom right, there are two buttons: 'OK' and 'Cancel'.

# Step 3: COM properties

In the drop-down panels select:

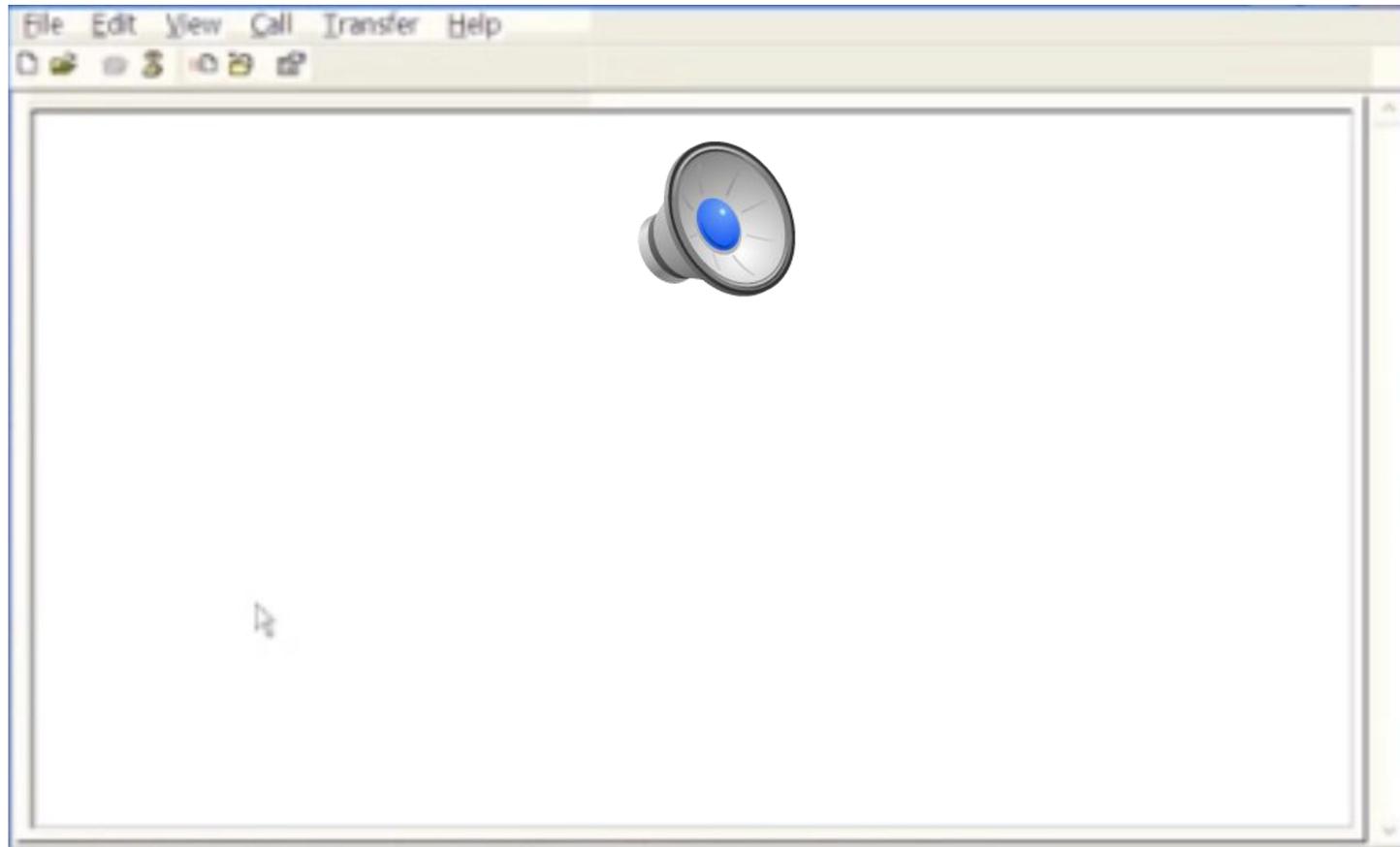
- In the first: 9600
- In the last (flow control): None
- OK

(Same settings as on ventilator)

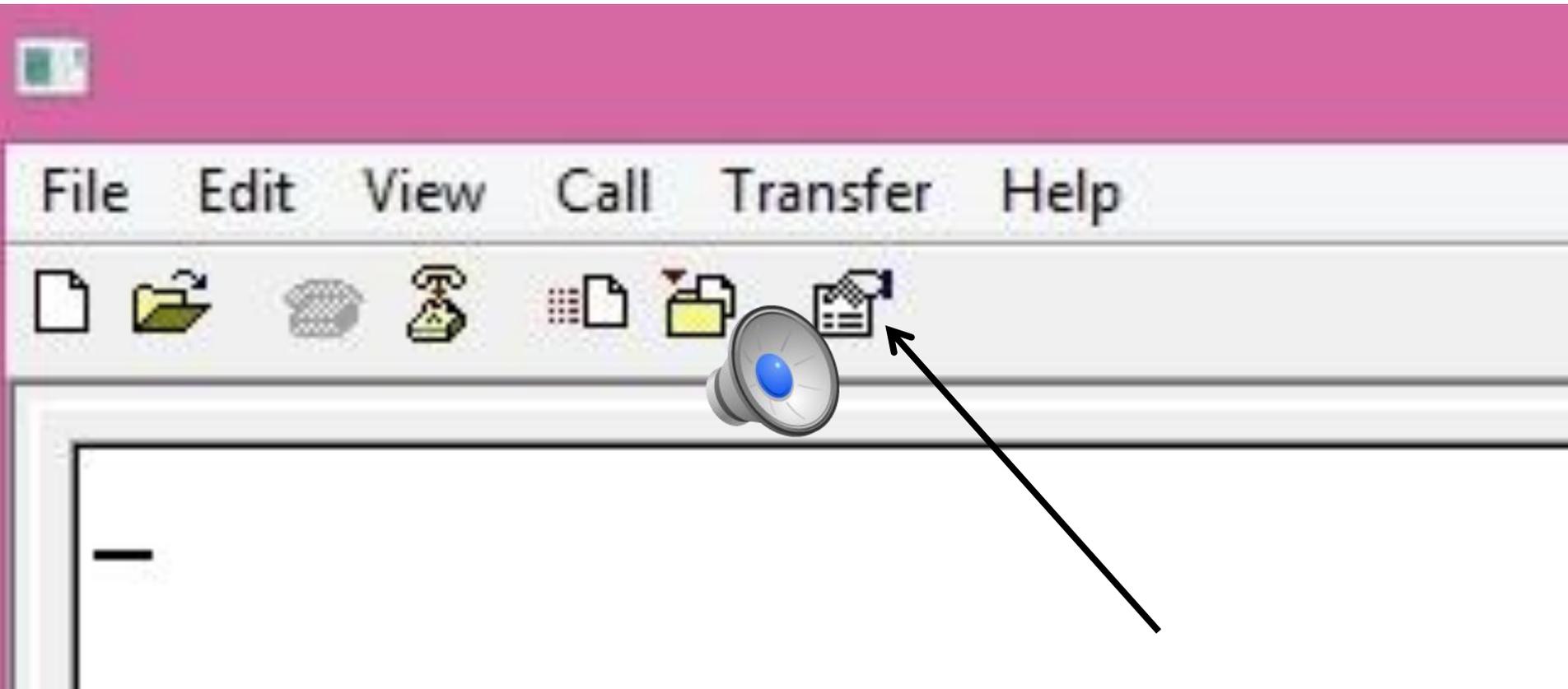


# Step 4: hyperterminal

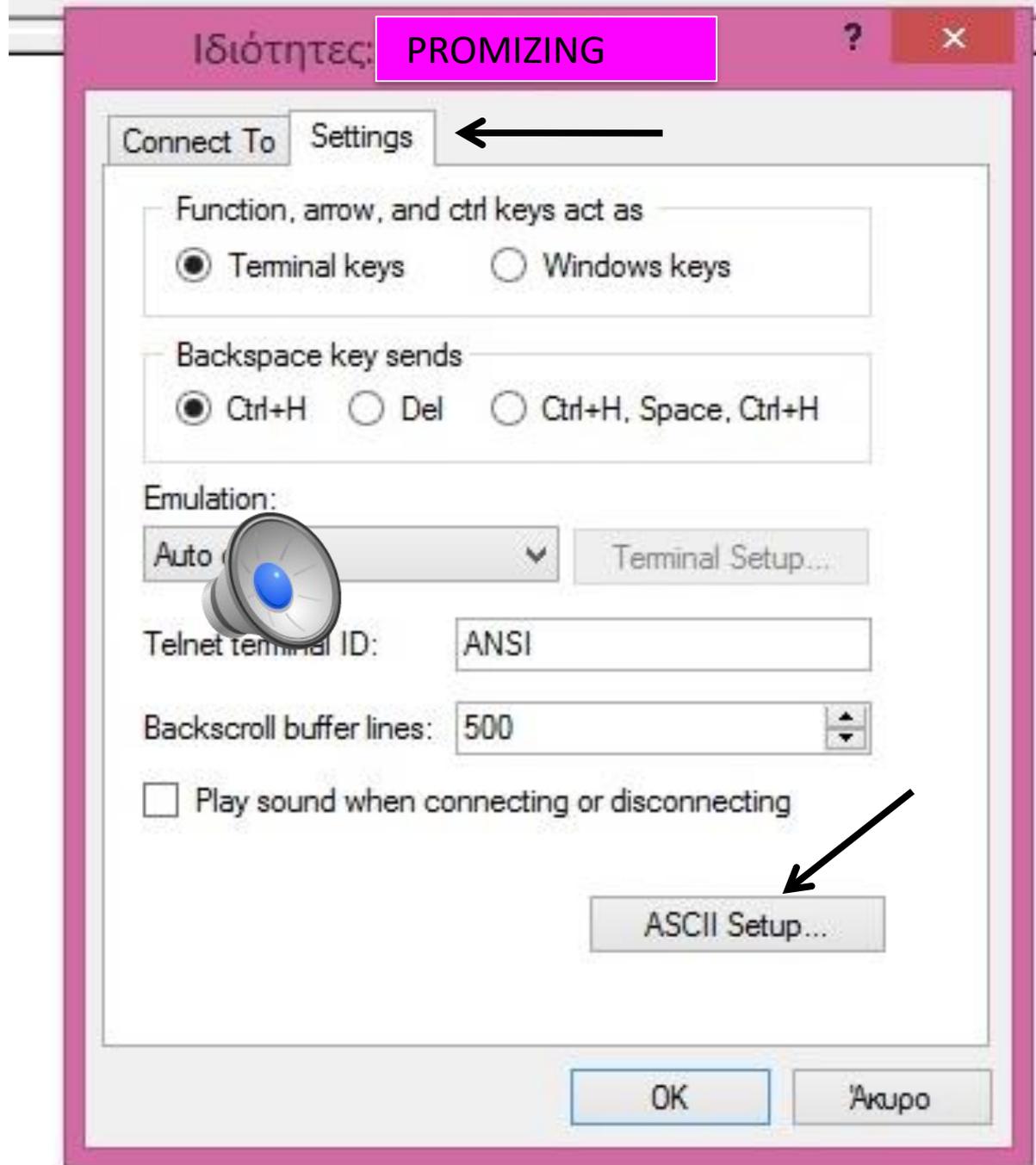
- Now this screen opens up



Click on this icon

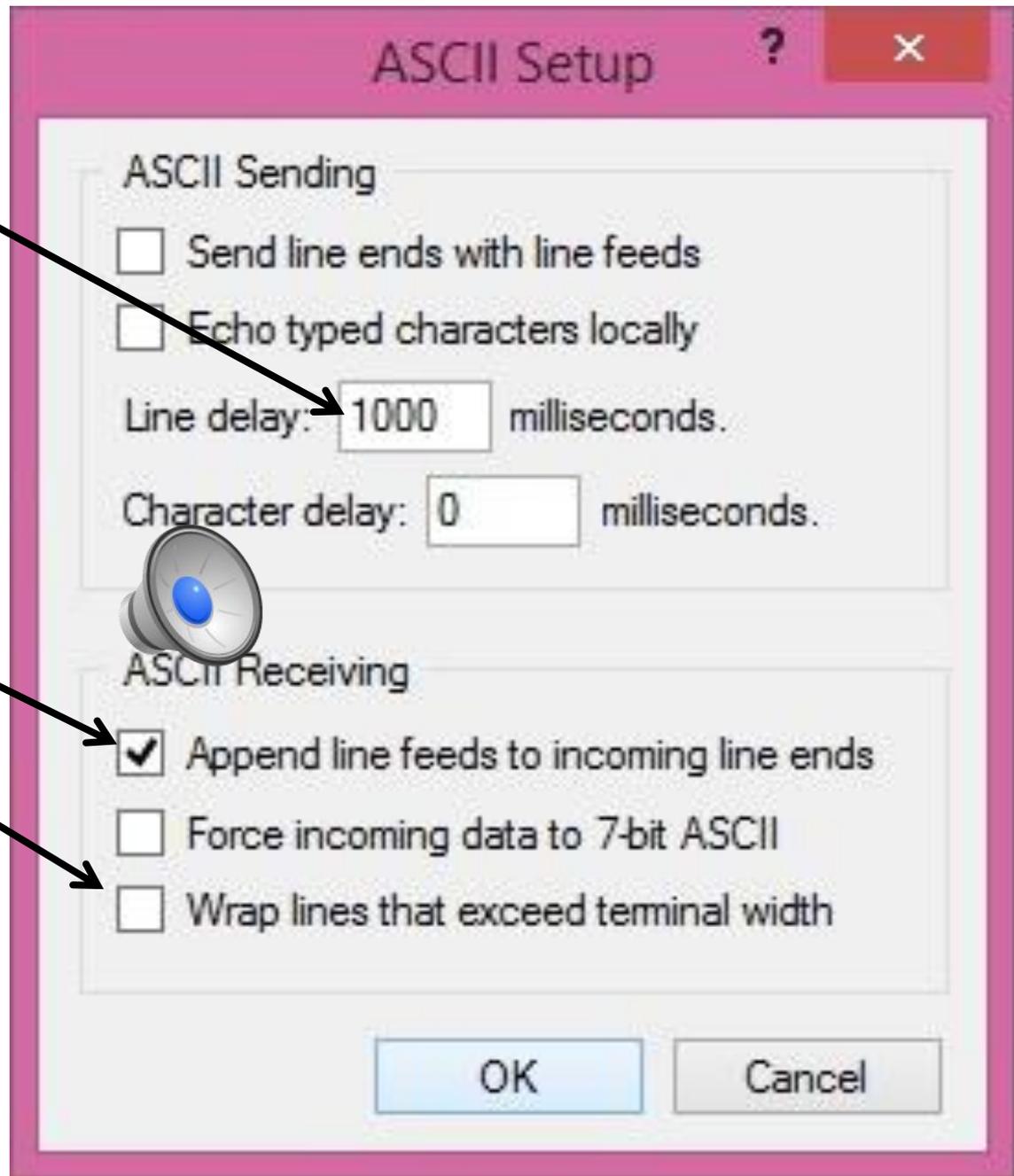


- Click on Settings
- Then click on ASCII Setup



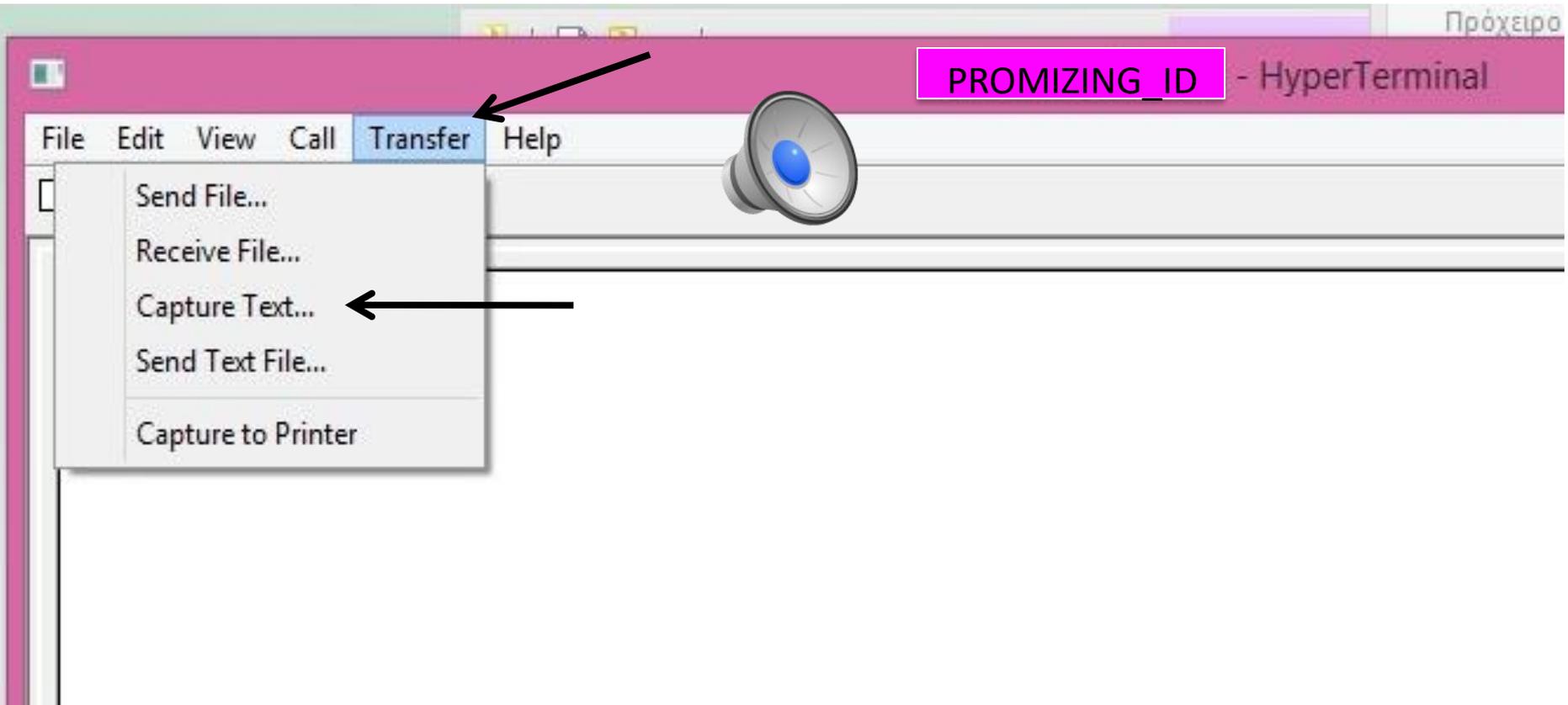
Make these changes here:

- 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



# Select file name and location to save

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



Capture Text ? X

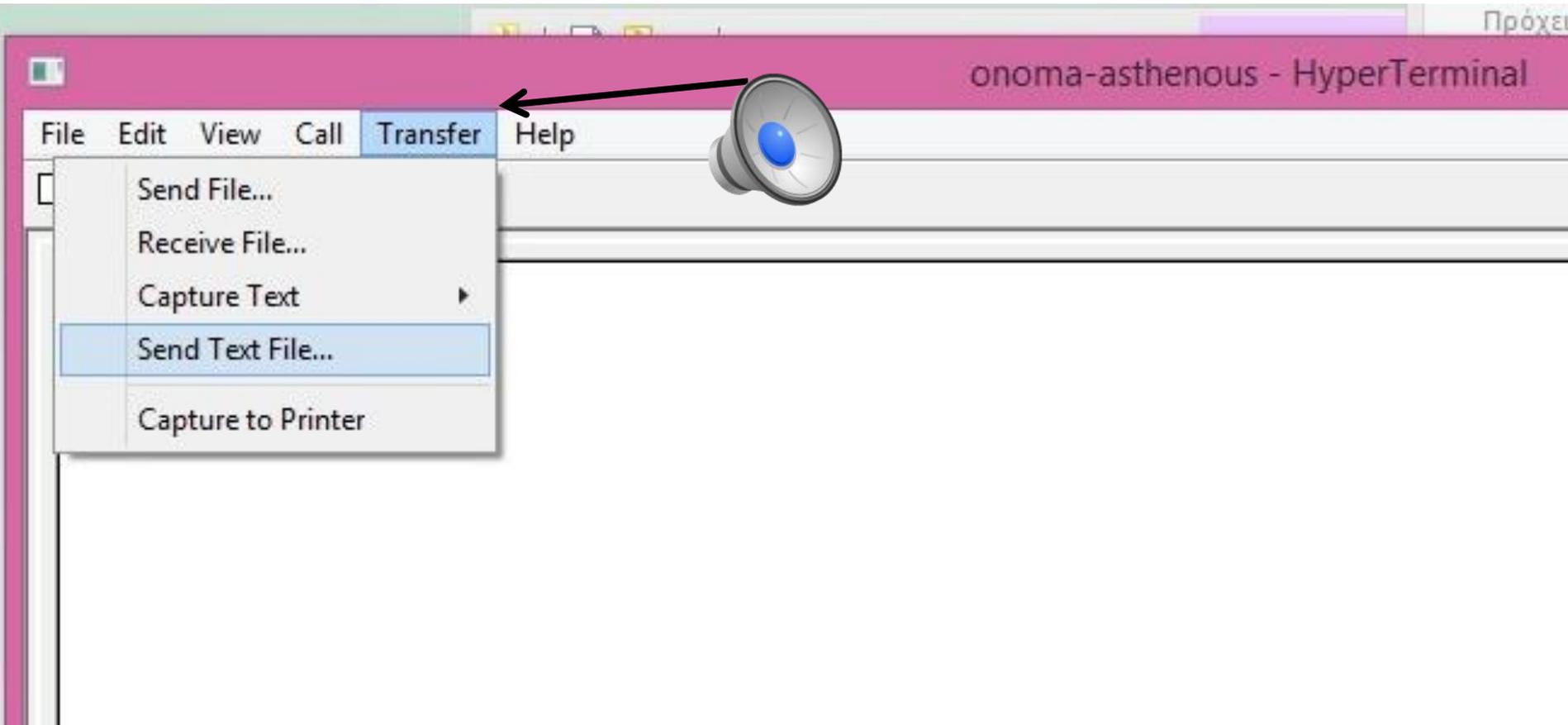
Folder: C:\Users\methmon.CLINICS\Desktop\FPROMIZING\_REC

File: .CLINICS\Desktop\PROMIZING\_REC\ID Browse...

Start Cancel

# Step 6: input the recording command txt

- Select: Transfer, select: Send Text File,



κειμένου

↑ « Επιφάνεια εργασίας » PROMIZING Αναζήτηση: PROMIZING

η ▾ Νέος φάκελος

Όνομα	Ημερομηνία τροπ...	Τύπος	Μέγεθος
Command3	7/12/2015 12:30 μμ	Έγγραφο κειμένου	1.758 KB

Όνομα αρχείου: Command3 Αρχείο κειμένου (\*.TXT)

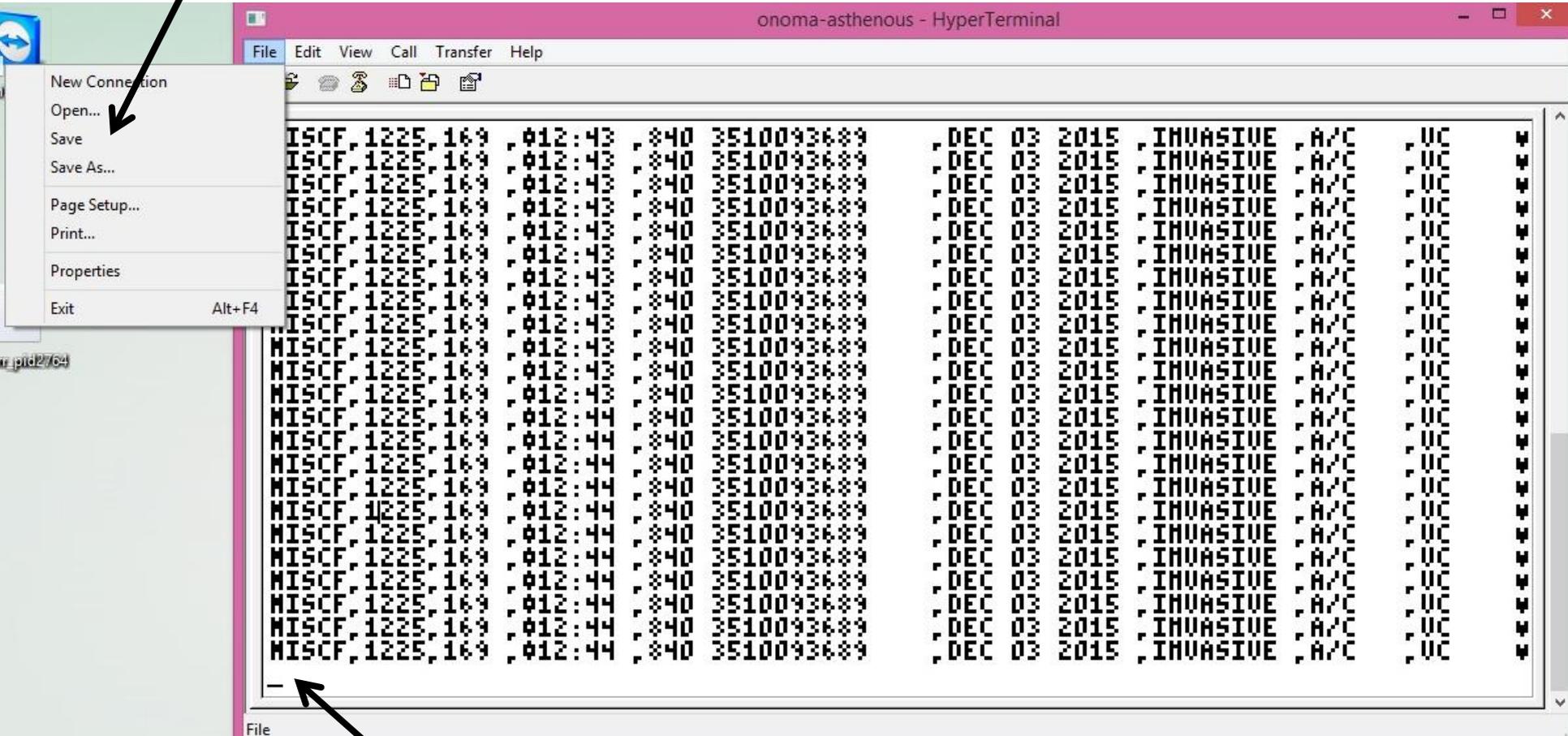
Άνοιγμα Άκυρο

Select the command text file and click OPEN



# 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.



New Connection

Open...

Save

Save As...

Page Setup...

Print...

Properties

Exit

Alt+F4

File

If you have any questions or problems with the connection please contact me:

[vaporidi@uoc.gr](mailto:vaporidi@uoc.gr) or [vaporidi@gmail.com](mailto:vaporidi@gmail.com)