



**INTRACOM**

**netMod**



**netMod Installation for RS-232**

**LINUX (with Xisp dialer)**



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## How to Configure netMod in Linux with Xisp Dialer

Please find hereafter a configuration procedure of netMod in LINUX using XISP Dialer, a GPL (General Public License) software.

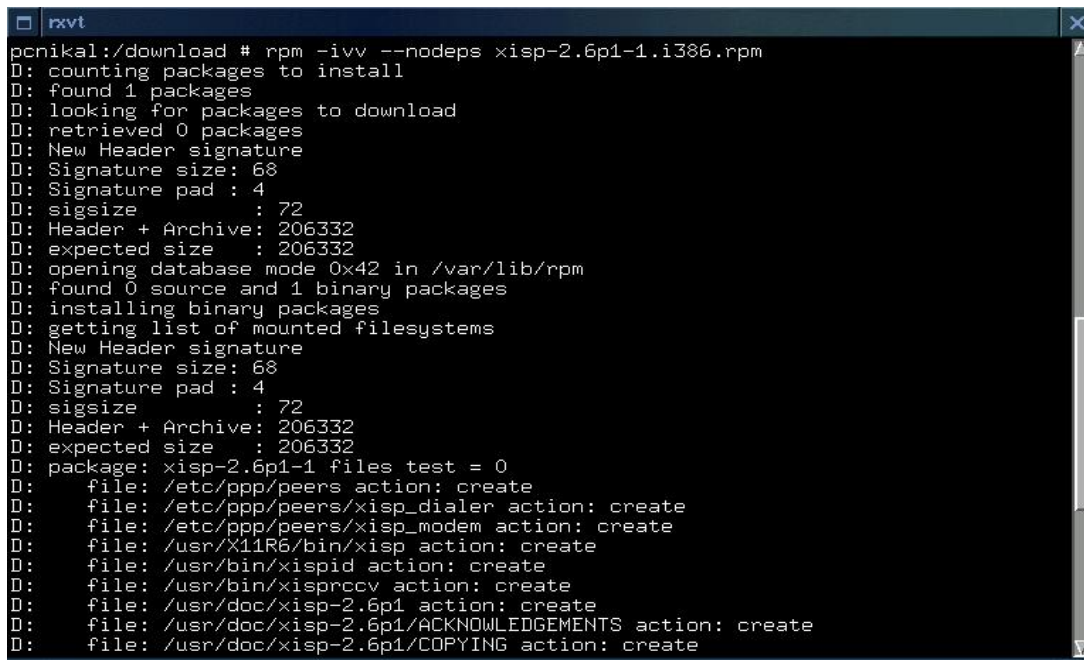
Before proceeding to the netMod installation and configuration, assure that you have an ISDN connection with at least one B channel (64 kbps) with an ISP provider.

Connect your netMod with a free serial port (DB9 or DB25) of your PC (before the connection, your netMod has to be activated and connected with the U line). The Linux OS does not need any special driver to operate your netMod.

- ☞ Login as a root user in your PC. Install the Xisp Dialer.
- ☞ Assure that you have RPM support (SuSE, RedHat and other Linux Distr.).
- ☞ In your terminal type the following commands:

**rpm -ivv --nodeps xisp-2.6p1.rpm** (installation of Xisp)

**rpm -ql xisp** (confirmation of Xisp correct installation)



```
pcnikal:/download # rpm -ivv --nodeps xisp-2.6p1-1.i386.rpm
D: counting packages to install
D: found 1 packages
D: looking for packages to download
D: retrieved 0 packages
D: New Header signature
D: Signature size: 68
D: Signature pad : 4
D: sigsize : 72
D: Header + Archive: 206332
D: expected size : 206332
D: opening database mode 0x42 in /var/lib/rpm
D: found 0 source and 1 binary packages
D: installing binary packages
D: getting list of mounted filesystems
D: New Header signature
D: Signature size: 68
D: Signature pad : 4
D: sigsize : 72
D: Header + Archive: 206332
D: expected size : 206332
D: package: xisp-2.6p1-1 files test = 0
D: file: /etc/ppp/peers action: create
D: file: /etc/ppp/peers/xisp_dialer action: create
D: file: /etc/ppp/peers/xisp_modem action: create
D: file: /usr/X11R6/bin/xisp action: create
D: file: /usr/bin/xispid action: create
D: file: /usr/bin/xisprccv action: create
D: file: /usr/doc/xisp-2.6p1 action: create
D: file: /usr/doc/xisp-2.6p1/ACKNOWLEDGEMENTS action: create
D: file: /usr/doc/xisp-2.6p1/COPYING action: create
```

The following table shows the correspondence between the serial and USB (if your kernel support it) devices under MS OS and Linux.

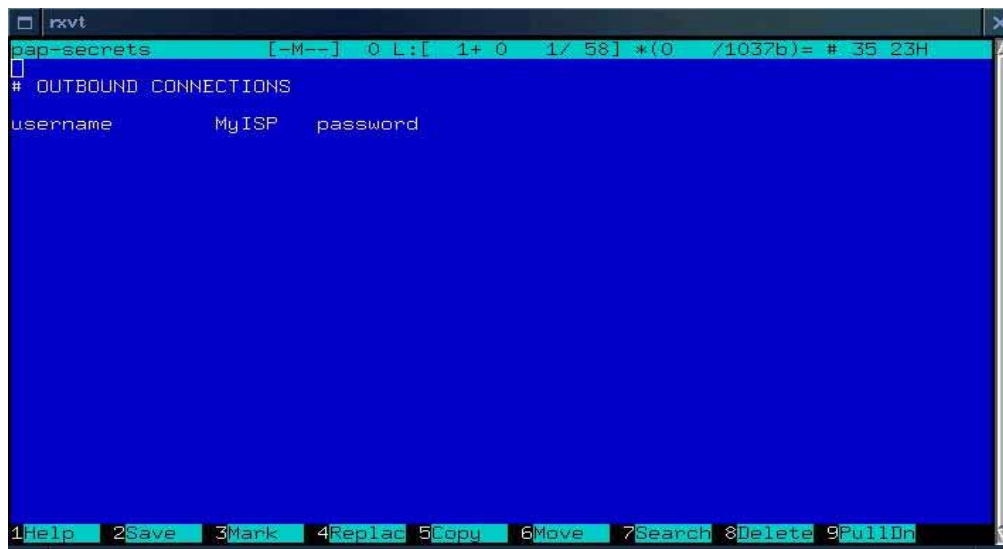
COM Devices under MS OS	COM Devices under Linux OS
COM1	/dev/ttyS0
COM2	/dev/ttyS1
COM3	/dev/ttyS2
USB port 1	/dev/ttyACM0 (Device only for USB Modems)

Many Linux Distr. establish a symlink (symbolic link) between the serial device connected to your modem and a virtual device called "modem" (*/dev/modem*). The serial device */dev/ttySx* and the device */dev/modem* are identical.

After the successful installation of netMod and Xisp you can be connected to the Internet. Assure that you have the appropriate account from your ISP (ISDN 64 or 128 kbps).

## Create your CHAP - PAP secret file

- Before proceeding to the configuration of Xisp you should create your secret file with **PAP** (PAP = Password Authentication Protocol (Clear text)) or **CHAP** (Challenge Handshake Authentication Protocol (with MD5 encryption)) (depending on your ISP) information.
- Change the directory to */etc/ppp* and with an editor (Joe, vi or MC internal editor) open the file *pap-secret* and add the following lines with the correct format as displayed on the next window.



```

pap-secrets  [-M--]  0 L:[ 1+ 0 1/ 58] *(0 /1037b)= # 35 23H
# OUTBOUND CONNECTIONS
username      MyISP      password

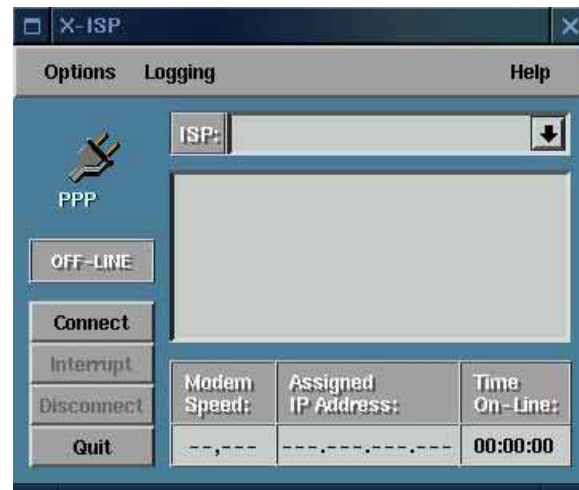
```

- Finally save and close your file (press: **F2** for Save, **F10** to close and exit).

## Xisp Configuration

Execute the binary file of Xisp and begin the Configuration procedure. The window shows the main screen of Xisp Dialer the first time you run it.

- Click at the **Options** menu and select the **Account Information** menu.

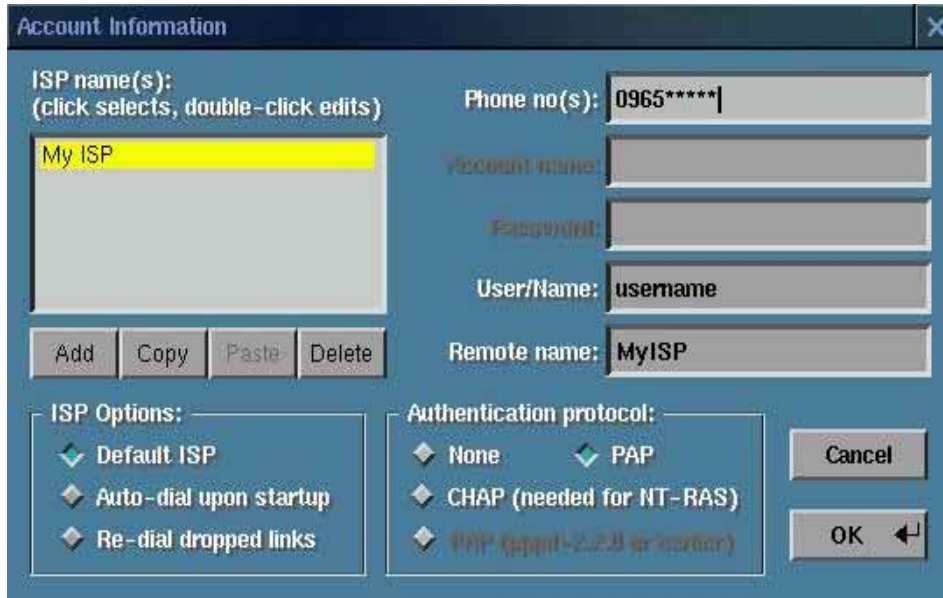


On the next window click on the **Add** button to add the name of your configuration.

- Enter the information about your ISP, click on the **OK** button and return to the **Account Information** window.



## Account Information



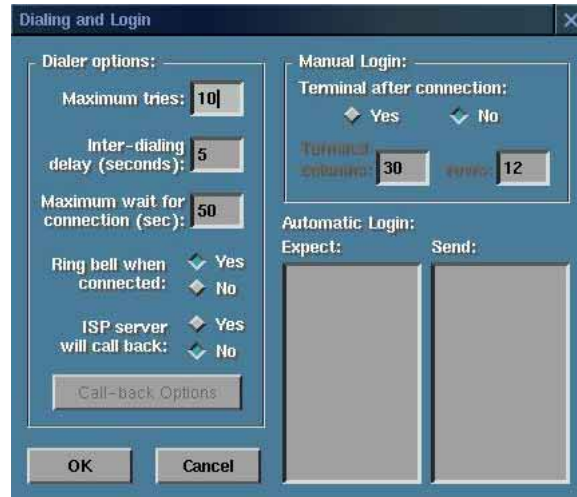
- Default ISP:** Define the name of your default Internet Service Provider
- Phone no(s):** Enter the ISP dial-up phone number
- Account name:** Enter your Username (for connection with login script)
- Password:** Enter your Password (for connection with login script)
- Authentication Protocol:** Select the correct authentication protocol supported by your ISP
- User/Name:** Type your Username after you have select the correct Authentication Protocol (see in "Create your PAP CHAP secret file")
- Remote name:** Type the name of your ISP (ex. MyISP)

☞ Click on the **OK** button and from the **Option** menu select the submenu **Dialing and Login**.

## Dialing and Login Settings

Leave all settings unchanged as they appear on the window or change them according to your requirements.

- ! In the **Manual Login** field you can create a very simple login script in the case your ISP doesn't support **CHAP** or **PAP** authentication.



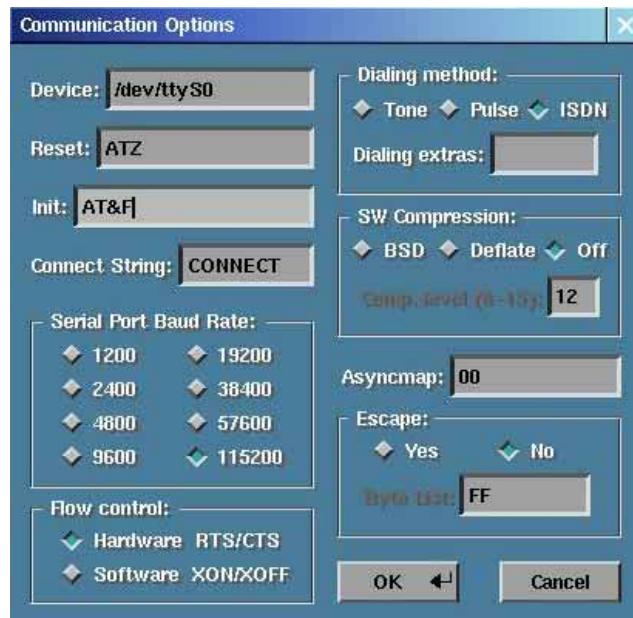
The 'Dialing and Login' window contains the following settings:

- Dialer options:**
  - Maximum tries: 10
  - Inter-dialing delay (seconds): 5
  - Maximum wait for connection (sec): 50
  - Ring bell when connected: ☒ Yes ☐ No
  - ISP server will call back: ☐ Yes ☒ No
  - Call-back Options button
- Manual Login:**
  - Terminal after connection: ☒ Yes ☐ No
  - Terminal opening: 30
  - Terminal closing: 12
- Automatic Login:**
  - Expect: (empty text field)
  - Send: (empty text field)

Buttons: OK, Cancel

## Communication Options

In this window you can perform various adjustments specific to your modem (reset, initialization and connection strings) and to the serial port (device, speed and flow control method). It also allows selection of the dialing and software compression method.



The 'Communication Options' window contains the following settings:

- Device:** /dev/ttyS0
- Reset:** ATZ
- Init:** AT&F
- Connect String:** CONNECT
- Serial Port Baud Rate:**
  - ☐ 1200 ☐ 19200
  - ☐ 2400 ☐ 38400
  - ☐ 4800 ☐ 57600
  - ☐ 9600 ☒ 115200
- Flow control:**
  - ☒ Hardware RTS/CTS
  - ☐ Software XON/XOFF
- Dialing method:**
  - ☐ Tone ☐ Pulse ☒ ISDN
- Dialing extras:** (empty text field)
- SW Compression:**
  - ☐ BSD ☐ Deflate ☒ Off
  - Comp. level (0-15): 12
- Asynmap:** 00
- Escape:**
  - ☐ Yes ☒ No
  - Byte list: FF

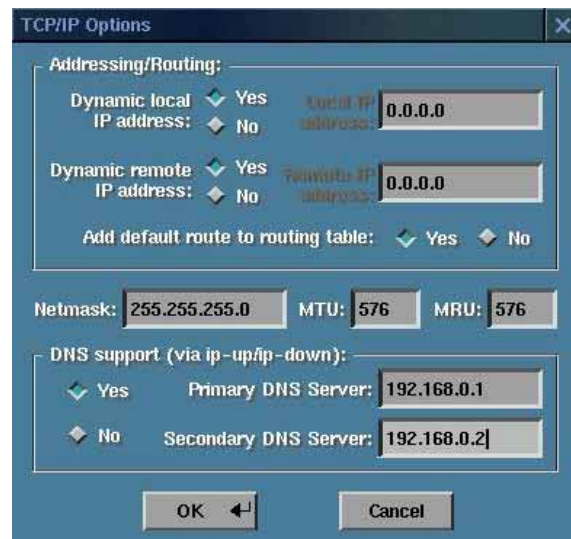
Buttons: OK, Cancel



<b>Device:</b>	Your Serial device or modem
<b>Reset:</b>	The AT command for resetting your modem (Default ATZ)
<b>Init:</b>	The modem init string (for 128Kbps add "B0")
<b>Connect String:</b>	The default connect message
<b>Flow Control:</b>	Select your flow control method
<b>Serial port Baud Rate:</b>	Your serial port speed (must be 115200)
<b>Dialing Method:</b>	Specify your dial method (in this case ISDN)
<b>SW Compression:</b>	The type of SW compression supported by your ISP

## TCP/IP Options

- Perform any adjustments to the IP and routing parameters of your system and enable DNS server definitions.



<b>Addressing/Routing:</b>	Specify how your ISP shall obtain the local and remote IP addresses (in Dial-up PPP connections this is done dynamically)
<b>Add default route to routing table:</b>	Specify the default route of TCP packets from your PC to the Internet
<b>Netmask:</b>	The default value is OK
<b>MTU/MRU:</b>	Maximum Transmit Unit and Maximum Receive Unit. For slow links like DialUp's, the suggested value is 576 (it is not a critical option)
<b>DNS support:</b>	Add the primary and secondary DNS server of your ISP (necessary in the most cases)



## Paths Setup

This window includes fields for adjusting the paths to:

- The pppd daemon
- The chat utility
- The xispdial and xispterm utilities

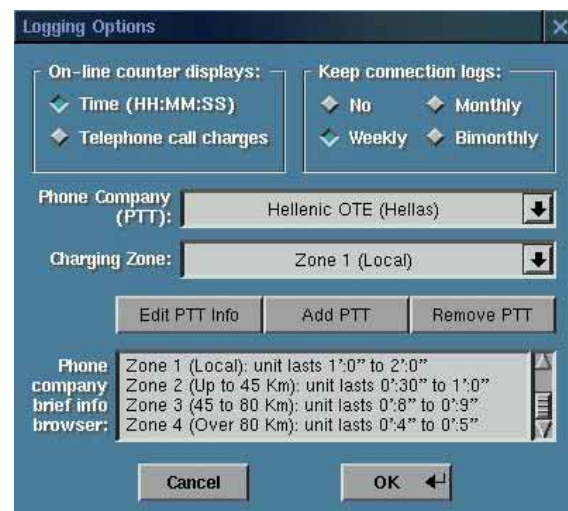
☞ For the first four entries, the **Default** button restores the path to its built-in default value, specified during compilation.



## Logging Options

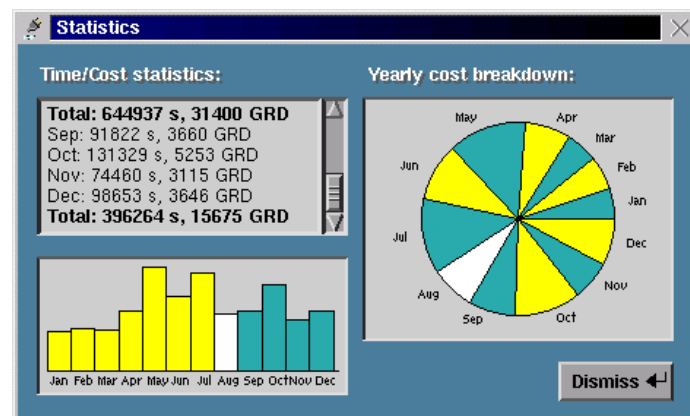
The **Logging Options** window allows the selection of the **Phone Company (PTT)**, the on-line counter displays type and the logging period, and enables manipulation of PTT attributes.

The PTT ASCII database maintained via the **Edit PTT Info** button is boot-strapped the first time xisp is executed, using the PTT information built into its tariff calculation module.



## DialUp Statistics

The **Statistics** window displays the PTT charges and the time on-line totals according to the logging period selected. This menu option is active only if the connection logs have been enabled in the **Logging Options** window.



## Making the Connection

☞ Finally, click on the **Connect** button in the main window of *Xisp* and wait for a few seconds for the establishment of the dialup connection.

⇒ As shown in the *Xisp* window, the connection to the ISP has been established successfully and the Connection Speed, the IP of the PPP link and the on-line time are shown in the bottom of the main window.



The Log window shows the sequence of the dialup procedure such as:

- The given Init string with the answers of modem
- The Dialed Number
- The Connection speed, the serial speed and the Protocol

## Related Informations and Links

Further information about the Xisp Dialer, the PPPD and PPP protocol, the Linux OS, the netMod NT/TA, FAQ's and HowTo's you can find under the following links:

[INTRACOM's Help Desk](#)  
[XISP Home Page](#)  
[LINUX Operating System Home Site](#)  
[LINUX Documentation Site](#)

**!** Note for 2.4.x kernels:

In case you have installed on your system a 2.4.x kernel with the "*Devfs*" system enabled, then the correct serial device is :

### 2.2.x kernels

/dev/ttyS0  
 /dev/ttyS1  
 /dev/ttyS2

### 2.4.x kernels with devfs support

/dev/tts/0  
 /dev/tts/1  
 /dev/tts/2