

# *NewDATA 9200*



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## **Overview**

NewDATA 9200, the GSM/HSCSD software modem emulator, is the ideal tool for the system manager and service technician. NewDATA9200 allows the Nokia Communicator 9210/9290 to be used like a GSM/HSCSD Modem. The remote Serial device is connected via the serial cable to the 9210/9210, and newDATA9200 connects it via a data call over the GSM network to the remote host, or modem. NewDATA9200 is the ideal application for service teams, or remote users connecting to or from command line hosts, e.g. Network switches, UNIX hosts.

A service team can, when they need escalation support, connect the Nokia Communicator 9210/9290 to the console port of defective equipment and get assistance via remote login from the support engineers.

The system manager, who uses newDIALin9200 to access his remote system during working hours, can use newDATA9200 from the hotel in the evening and have the advantage of entering data via a standard Laptop screen and keyboard instead of the small Communicator 9210/9290 keyboard.

The received, and transmitted data can be dumped into a trace file, for a complete analyse, should problems occur. This data can be stored either in a easily read readable format, or in an image copy of the received data.

NewDATA9200 is available as a shareware programme in English and German. The shareware version is fully functional with an additional information screen blended in when going online. This screen disappears after the registration code has been entered.

*Note: The Registration can be done easily via one of the online registration companies listed on our web site: <http://www.newnet-marketing.de>*



## **Modem operation**

When newDATA9200 is started the internal modem in the Nokia Communicator 9210/9290 is actuated, and any commands entered via the serial port will be passed to its HAYES command line interpreter.

*Note: The <DIALIN>, and <ANSWER> buttons offer easy standard scripts for start connections or wait for incoming calls.*

It will be noted that when the modem switches into the transparent mode by connecting to a remote modem, the "CONNECT XXXXX" message will be shown on the Communicator 9210/9290 screen and the <HANGUP> CBA button will be highlighted.

This button can be used to reenter the HAYES command modem, and hangup the call.

- The data being transferred over the modem can be captured into a file for analysis
- The data can also be displayed directly on the screen for an immediate overview of the data flow.



### ***Dialin button, or menu function***

The <DIALIN> command, entered either from the CBA button, or from the menu function runs a script of commands to allow easy connection to a remote host. In its standard form the telephone number of the remote host will requested in a dialog.

There are 2 different dialogs that can be used to enter the remote telephone number. The field <Tel. From Contacts> in the <tools> Menu selects which is used.

One dialog expects the telephone number to be directly entered, and will store the last 20 entered numbers.

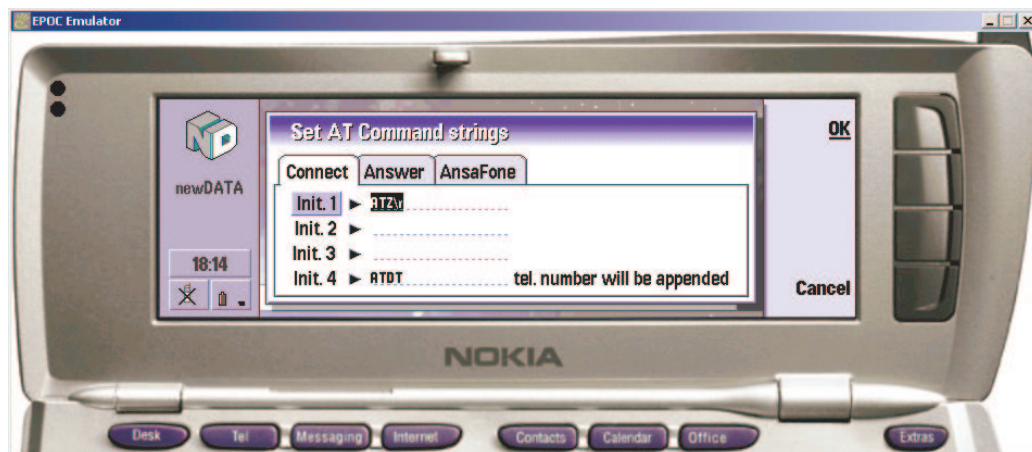
The user can however choose to store his remote telephone numbers in the Communicator Contacts database, and call them directly from there. This dialog will allow the search to be done on one of the following:

- Company
- Given name
- Last name

Only telephone numbers stored in the "Work Telephone Number" field will be returned.

The dialup connection uses the builtin mobile phone from the Nokia Communicator, and will connect to the remote modem via the selected telephone number.

The commands used in this script can be modified to select other modes e.g. HSCSD, etc. The commands can modified via the dialog <AT-Commands>, which will be found under the <Setup> menu.



The dialog <Connect> contains the 4 lines of commands performed during the dialup. These AT-command strings can be modified directly to any new HAYES commands. The last command buffer will automatically have the remote telephone number appended unless it is left empty.

**Note:**

- Control characters can be entered in a C-like syntax, as listed below.
- The command lines must be terminated with the return character ("`\r`") for the HAYES modem to respond.
- This function is disabled when the HAYES modem is in transparent mode, after the connection has been made.



**AutoDial link**

A link can be placed on the Nokia Communicator 9210/9290 desktop window to directly start newDATA 9200, and immediately dial specific remote modem. Any number of these links, with different names, can be placed starting connections to different remote modems.

To create a new link call the <AutoDial Link> from the <File> menu. Enter the telephone number of the remote modem, and the name under which the entry should appear on the Communicator 9210/9290 desktop.

*Note: These links can be deleted at any time, when they are not needed any more, by using the standard Communicator 9210/9290 file manager commands.*



### ***Answer button, or menu function***

The <Answer> command, entered either from the CBA button, or from the menu function runs a script of commands to allow the modem to start listening for DATA calls from remote hosts.

The connection uses the builtin mobile phone from the Nokia Communicator 9210/9290, and will be called from the remote modem.

The commands used in this script can be modified to select other modes e.g. HSCSD, etc. The commands can be modified via the dialog <AT-Commands>, which will be found under the <Setup> menu.

The dialog <Answer> contains the 4 lines of commands performed during the setup. These AT-command strings can be modified directly to any new HAYES commands.

#### ***Note:***

- *Control characters can be entered in a C-like syntax, as listed below.*
- *The command lines must be terminated with the return character ("r") for the HAYES modem to respond.*
- *This function is disabled when the HAYES modem is in transparent mode, after the connection has been made.*



### ***AutoAnswer link***

A link can be placed on the Nokia Communicator 9210/9290 desktop window to directly start newDATA 9200, and immediately wait for a call from a remote modem.

To create a new link call the <AutoAnswer Link> from the <File> menu. The field for the telephone number of the remote modem is deactivated.

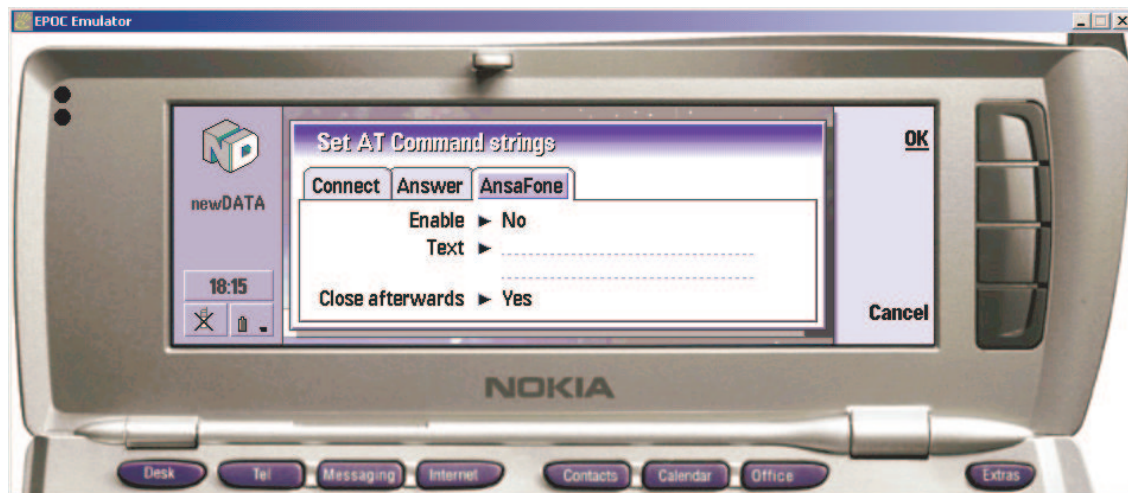
The name under which the entry should appear on the Communicator 9210/9290 desktop should be entered into the <Connection Name> field.

*Note: These links can be deleted at any time, when they are not needed any more, by using the standard Nokia Communicator 9210/9290 file manager commands.*



## **AnsaFone function**

An additional text can be entered via the <AnsaFone> dialog, that will be sent automatically after a connection has been made.



The text, and status can be modified via the dialog <AT-Commands>, which will be found under the <Setup> menu.

The AnsaFone function is selected by enabling the <Enable> field. The text must then be entered into the "text" field.

### **Note:**

- *Control characters can be entered within this text as described below.*
- *It is probably good to terminate the text with a "\r\n", so that the text appears in a good readable way on the remote host.*

If the connection should be dropped automatically after sending this text, select the field <Close afterwards>.



## **Hangup button, or menu function**

This button is only enabled when the HAYES modem has in transparent mode, and therefore is connected to the remote modem.

When this function is called, the HAYES default escape sequence is sent to the modem "+++", followed by the standard hangup HAYES command "ATH".

*Note: It is not always possible to detect when the connection is closed from the remote modem. This means that even though a running connection has been closed by the remote modem, this function will remain active, and will have to be called to return to the command mode.*



### **Control character entry**

In the HAYES commands dialog fields, control characters can be entered to allow complete flexibility.

The control characters can be entered in a C-like syntax,

- by either giving their Hex. Value e.g. \x27
- or for standard control characters the abbreviations:
  - \r = carriage return
  - \n = new line
  - \t = horizontal tab
  - \e = escape



### **Capture - Screen logging**

Screen logging displays the data being sent via the modem on the screen in an easily readable format. The data is not stored in a file.

When the <Screen logging> menu is called, a new page appears on the Nokia Communicator 9210/9290 on which the data will be displayed. The scrollbar on the righthand side of the screen allows the data to be scrolled up and down.

Each line is prefixed with the time of the entry and then:

- "GSM>>>Serial"
- "Serial<<<GSM"

*Note: This logging screen will consume considerable memory, and CPU resources if left running all the time. It should only be used for test purposes.*



## ***Capture to file***

All data can be stored in a capture file to assist debugging, or for documentation purposes. This is turned on by selecting the <Capture to file> menu, and selecting a suitable file name.

The following modes are available:

- The <normal> mode only records the received data, and expands any control characters to assist analysing the received data.
- The <full> mode records the data sent out, and control signals in addition to the data recorded in normal mode.
- The <image> mode is used to store the received data in a format that can be used later for a replay.



## ***Registration***

newDATA 9200 is a fully functional shareware application. The user can test the programme for 20 days before deciding whether it suits hi needs or not. After this time it will be necessary to register via one of the registration services listed for this product.

The registration will include a registration code which together with the registration name must be entered in the <registration> dialog. This dialog will be found under the <tools> menu.

Once the registration has been correctly entered, the registration name will appear on the main page every time the application is started.

- Once the registration has been entered, it is not possible to re-register under a different name.
- It is not possible to register Beta software, which will run out after the Beta test has completed.
- After 20 days from the first installation, newDATA 9200 will no longer connect to a remote host if it has not been registered.