

DeskDial for Windows

3.1

Ascend Communications, Inc.

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Information you will need

Before contacting Ascend Customer Service, gather the following information:

- Product name and model
- Software and hardware options
- Software version
- Type of computer you are using
- Description of the problem

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Web

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Phone

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1-900-555-ASND (2763)

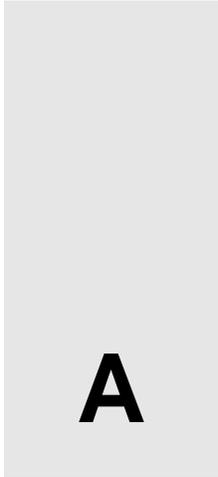
The per minute rate for technical assistance is \$2.95. Charges for technical assistance do not begin until you are connected to an Ascend Network Support Engineer. All charges will be billed directly to your telephone bill.

Need information about new features and products?

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- For the latest information about the Ascend product line, visit our site on the World Wide Web:
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- For software upgrades, release notes, and addenda to this manual, visit our FTP site:
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DeskDial makes it possible for data-communications programs, such as terminal emulators and fax programs, to use a modem in a MAX as though it were a modem connected directly to the computer.

About DeskDial

Most products in the Ascend MAX family can include modems. These modems can accept incoming calls, such as calls from telecommuters connecting to a corporate network or calls from Internet users connecting to an Internet service provider. In addition, modems in a MAX 200 Plus, 1800, 2000, or 4000 series unit can make outgoing calls. DeskDial is software that lets terminal emulators, fax programs, and other data-communications programs use MAX modems for outgoing connections. It makes MAX modems look and work as though they were connected directly to a computer running a data-communications program.

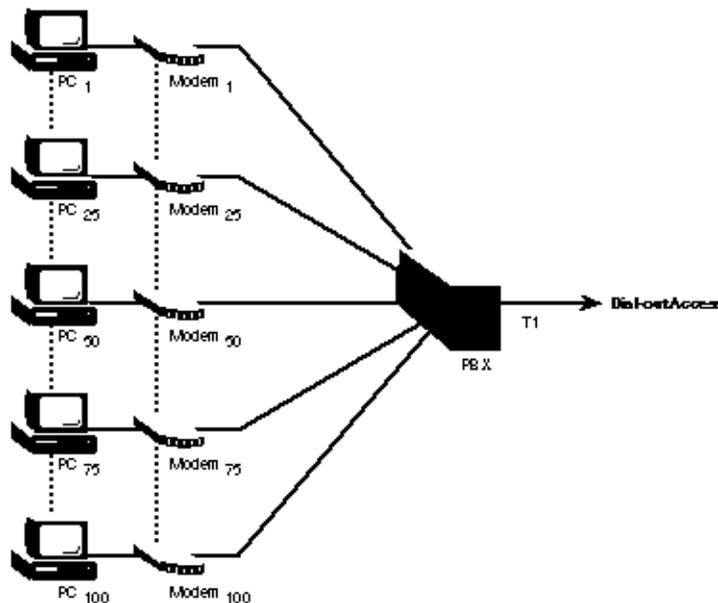
How DeskDial works

DeskDial creates a new COM port in Microsoft Windows that a data-communications program can connect to. For almost all of the operations the program performs, this COM port behaves just like one of the computer's built-in COM ports with a modem attached. When the program sends data to or gets data from this COM port, DeskDial uses a TCP/IP local-area network to transport the data to or from the MAX modem. The MAX and the computer running the program must be on the same local-area network.

Advantages of DeskDial

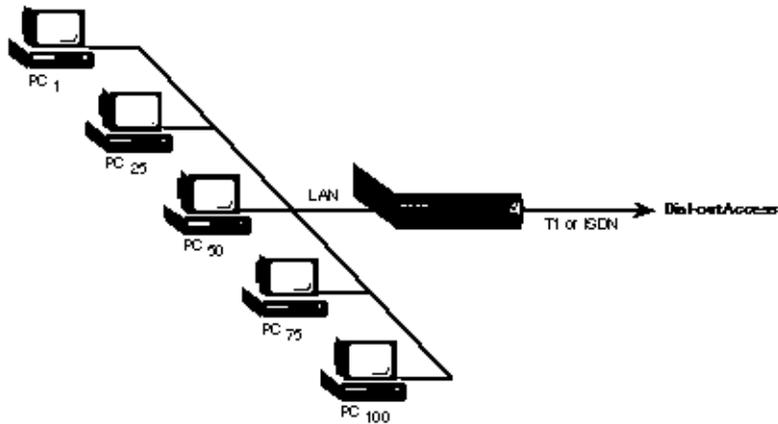
If many users in your organization need to make outgoing modem calls, one solution is to provide a modem and analog telephone line for each user, as shown in the following illustration. This, however, can be very expensive:

- You need to buy many individual modems.
- You need to pay monthly telephone bills for analog telephone lines that are frequently unused.
- Management of the lines is difficult.
- Support costs are typically high.



An alternative is to provide an analog modem pool that is shared by many users. Although this is normally much better than using individual modems, there is a better solution: using DeskDial with modems in a MAX, as shown in the next illustration. This solution has many advantages:

- Using digital modems in the MAX rather than analog modems eliminates problems with line noise and the slower throughput that results.
- You can use a single network connection to the MAX for outgoing calls rather than allocating an analog line from a PBX for each modem.
- You can centralize administration of modems using console-based management tools.
- Fewer wires and connections simplify troubleshooting.
- The MAX includes security features that let you control access to modems and your network.



Limitations of DeskDial

You can use DeskDial only for outgoing modem connections. You cannot use it for incoming connections to a data-communications program, such as incoming faxes.

You cannot use communications programs written for MS-DOS with DeskDial. You can, however, use MS-DOS communications programs with DeskDial (the earlier version of the software that works with IPX networks) if your local-area network supports Novell IPX network protocols.

Hardware requirements

Each computer that uses DeskDial requires an Ethernet connection to a local-area network. The network must use TCP/IP network protocols.

There must one or more of the following MAX units on the same local-area network:

- A MAX 1800, 2000, or 4000 series unit with a digital modem card and TCP/IP support.
- A MAX 200 Plus with one or more PC Card (PCMCIA) modems.

Note: If a MAX 200 Plus has more than one modem, all the modems should be the same type. A data-communications program using DeskDial cannot specify which of the MAX 200 Plus modems to use, and using identical modems ensures that any modem initialization that is required will work for any of the modems.

See the Read Me file included with your version of DeskDial to find out what version of the MAX software is required.

To use fax software, the modems must have Class 2 fax capability. For a list of currently supported modems and their capabilities, see the Ascend World Wide Web site at

<http://www.ascend.com/>

DeskDial works best when the computers and MAX are on the same segment of the local-area network (that is, with no bridges or routers between them) and when network traffic on the segment is not unusually high. The performance of DeskDial is often acceptable when there are one or more intervening bridges or routers, provided that the bridges or routers or heavy network traffic do not significantly delay the transmission of data. Delays in the transmission of data can reduce the maximum speed of a communications program. If the delays are severe, a communications program can lose its connection to the MAX modem.

Software requirements

You must use the correct version of DeskDial for your operating system. There are different versions for Windows NT, Windows 95, and Windows 3.1.



Caution: Using the wrong version of DeskDial for your operating system can cause serious problems, including damage to your system software.

To use DeskDial, a computer must have properly configured software for connecting to a TCP/IP network, such as the TCP/IP software included with Windows for Workgroups, NetManage Chameleon, or Ascend MAXLink Pro. The software must comply with the Windows Sockets 1.1 standard and use the Microsoft Transport Driver Interface (TDI).

The Windows 3.1 version of DeskDial supports 16-bit data-communications programs written for Microsoft Windows 3.1 or Windows for Workgroups (Windows 3.11). These programs must communicate with a COM port (such as COM1 or COM2) rather than directly with your computer's serial communications hardware. Nearly all communications programs written for Microsoft Windows communicate with a COM port; communications programs written for MS-DOS, which are not supported by DeskDial, do not.

Data-communications programs you use with DeskDial must also use hardware flow control (RTS/CTS) when communicating with a MAX modem. Most fax programs use software flow control (XON/XOFF) by default, and you must change this setting before using any of these programs with DeskDial. For information on configuring fax software for use with DeskDial, see *Configuring a communications program to use DeskDial*.

Fax programs you use with DeskDial must support Class 2 fax modems as well as hardware flow control. Fax programs that work with DeskDial for Windows 3.1 include:

- WinFax PRO from Symantec (formerly Delrina)
- QuickLink II from Smith Micro

If you are using DeskDial with a MAX 200 Plus, you can also use fax programs included with any PC Card (PCMCIA) modems that are supported by the MAX 200 Plus and that allow Class 2 fax operation. For a list of modems that are currently supported and to find out which ones support faxing, see

<http://www.ascend.com/products/max200plus/pcmcialist.html>

on the Ascend Communications World Wide Web site.

Installing the software

To install the DeskDial software:

- 1 On the distribution disk or in the distribution directory, find and open the directory containing DeskDial for Windows 3.1.
- 2 In this directory, double-click the SETUP.EXE icon.
- 3 Follow the instructions that appear.

Configuring DeskDial

Getting information from your system administrator

Before configuring the DeskDial COM port or any communications programs, get the following information from your system administrator:

- The numbers of the COM ports on your computer and whether they are currently being used.
Most computers have at least two COM ports, normally COM1 and COM2, and many have four. There is a COM port for each external serial connector that is currently enabled (most computers have two of these). There can also be COM ports for internal serial devices, such as an internal modem card or a bus mouse controller card.
- If there is more than one MAX on your local network, the name of the MAX to connect to.
- If the MAX is not in the same subnet as your computer, the IP address of the MAX.
- The immediate modem port to use on the MAX.
- Your user name, if a user name is required to use the MAX modem.
- A password, if one is required to use the MAX modem.
- If you are connecting to a MAX 200 Plus, the brand and model of the PC Card modems installed in it.

Configuring the DeskDial COM port

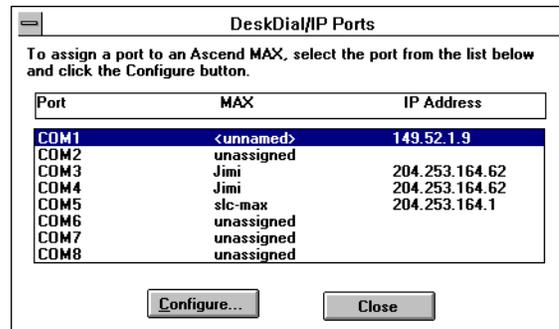
To configure the COM port DeskDial will use for MAX modems:

- 1 In the Program Manager, open the DeskDial program group if it is not already open.

The DeskDial program group window appears.

- 2 Double-click the Port Status and Setup icon.

The DeskDial/IP Ports Window appears:



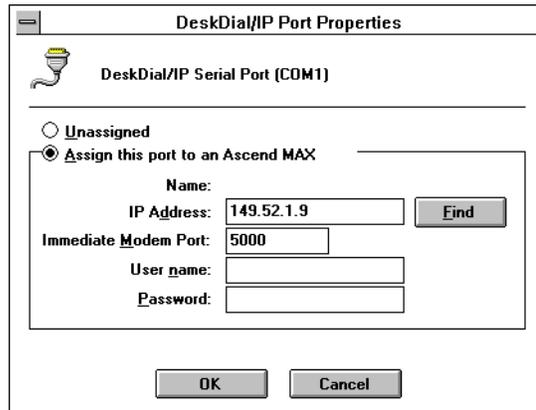
- 3 Select a COM port that is not currently used and then click Configure.

Note: Most computers have from two to four built-in COM ports. If you select one of the built-in ports, you cannot use the same port for a modem or other device. If you select a port that is not built in, DeskDial creates a new COM port for its own use, and the built-in ports remain available for other devices.

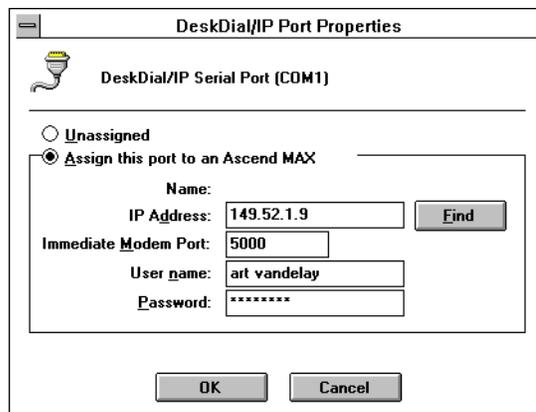
The DeskDial/IP Ports Properties window appears:

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Configuring DeskDial



- 4 Click Assign this Port to an Ascend MAX.
- 5 Click the Find button to find a MAX on the local-area network.
- 6 When DeskDial finds the MAX, the Find MAXs window appears.
- 7 Click the name of the MAX you want to use name and click OK.
- 8 If it does not find the MAX you want to use, click Cancel to return to the DeskDial/IP Port Properties window.



- 9 Enter the unit's IP address in the IP address field.

- 10 Enter the number of the immediate modem port to use. In addition, enter a user name and password if they are required.
- 11 Click OK.

Configuring a communications program to use DeskDial

To configure a communications program to use DeskDial:

- 1 Where you specify the COM port for connecting the modem, enter the COM port number you specified earlier for DeskDial.
- 2 If you need to choose a modem type:
 - If you are connecting to a MAX other than a MAX 200 Plus, choose Supra V.34, Zoom V.34, or Generic Rockwell Modem.
 - If you are connecting to a MAX 200 Plus, choose the brand and model of the PC Card modems installed in the MAX 200 Plus.

Note: If the communications program does not include appropriate choices, you may need to enter a custom initialization string for your modem. To get this string, see the reference information for your modem or contact your system administrator or modem manufacturer.

- 3 Make sure that the initialization string for the modem includes a command to enable hardware flow control (RTS/CTS).
The modem string must include the command shown in the following table for the chipset used in the modem:

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Configuring a communications program to use DeskDial

Chipset used in modem	Command to include in modem string
Rockwell (used in most inexpensive modems as well as the digital modems for any MAX other than the MAX 200 Plus)	&K3
AT&T	\Q3
US Robotics	&H1&R2

Enabling hardware flow control in WinFax PRO

To enable hardware flow control in WinFax PRO, include the following line in the [General] section of the file WINFAX.INI located in either the Windows directory or the WinFax directory:

```
HdwFlowControl=1
```

Configuring fax software for a Class 2 fax modem

You can use DeskDial to send faxes only if your fax software is configured to work with a Class 2 (or 2.0) fax modem. You cannot use fax software that supports only Class 1 fax operation. The following instructions explain how to configure QuickLink II from Smith Micro for Class 2 fax operation. To find out how to configure other fax programs for Class 2 fax operation, see the documentation for the program or contact the manufacturer.

Configuring QuickLink II for a Class 2 fax modem

To configure QuickLink II from Smith Micro for use with a Class 2 fax modem:

- 1 Install the program *but do not run it*.

Note: If you have already run the program, delete the SMSSETUP.DAT file in the QuickLink II directory before proceeding. Note, however, that this

deletes other information such as phone book entries and cover page settings.

- 2 Use EDIT or another text editor (not a word processor) to open the SMSSETUP.DAT file in the QuickLink II directory
- 3 Search for and delete all lines containing `ForceFaxClass`.
- 4 In the [Setup Options] section, find the following line:
`AvailableFaxClass=1`
- 5 Change this line to
`AvailableFaxClass=7`

Configuring a MAX for DeskDial

All MAX 200 Plus units support both DeskDial and DeskDial for IPX networks. To use DeskDial or DeskDial for IPX networks with any MAX other than a MAX 200 Plus, you must purchase the DeskDial option for the MAX if you haven't already. To obtain this option, contact your Ascend dealer.

To see if a MAX has the DeskDial option:

- 1 Use Telnet or the control port to connect to the MAX.
- 2 Press Command-L to display the configuration windows.
- 3 When the configuration windows appear, press the Tab key until the Sys Option window is highlighted.
- 4 Scroll down, either by pressing the Down arrow key or Command-N, until the Max Dial item appears.
- 5 If the value of the Max Dial item is Max Dial Inst, the MAX has the DeskDial option.

To make the modems in a MAX available to DeskDial:

- 1 In the Edit window of the VT100 interface, open the Ethernet > Mod Config > TServ Options menu.
- 2 Set Immediate Modem to Yes.
- 3 Set Imm. Modem Port to a value between 5000 and 65535 that is not already used to specify a TCP/IP port.

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Configuring a MAX for DeskDial

This can be any value in this range. When users configure DeskDial, this is the value they enter for Immediate Modem Port.

- 4 Set Imm. Modem Auth to the type of authentication required for using the modems.

Choose None if no authentication is needed, Global to use the same password for all users (no user name is required), or User to require both a user name and a password. If you choose User, DeskDial uses either a local connection profile or a RADIUS profile for authentication. If it uses a connection profile, it uses the value of the Recv PW parameter as the password rather than the Send PW parameter.

Note: Not all these authentication modes are available in MAX software earlier than version 4.6Ci17. See the Read Me file included with your version of DeskDial to find out what version of the MAX software is recommended.

- 5 If a password is required for either Global or User authentication, set Imm. Modem Pwd to Yes.
- 6 If you chose User as the value of Imm. Modem Access, you must enable modem dialout in the profile for each user to whom you grant modem access:
 - In a Connection profile for the user, set Dialout OK to Yes.
 - In a RADIUS profile for the user, set Ascend-Dialout-Allowed to Yes.