

# BitCom's Online Help

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## Script Reference

BitCom's script files are small programs that automate often-repeated communication tasks. Similar to the programming language BASIC and other script languages, these macros tell BitCom to perform certain tasks, such as making a connection, giving a password or downloading a file. If you frequently call pay services such as CompuServe, script files can save you a great deal of time and money.

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## Script Recorder

BitCom's Script Recorder records modem commands that are sent to the modem via the keyboard into a script file (.SCP). You can later use the Script Editor to edit the script file and fine tune its operation.

The following shows how to start recording a script file.

### To start recording:

1. Click on Script in the BitCom window.
2. Click on Start Recorder.
3. Enter a filename for the script file in the Recorder Open dialog box.
4. Enter the modem commands in the scroll buffer area.

### To stop recording:

5. Click on Script in the BitCom window.
6. Click on Stop Recorder.

---

### See Also

[Running Script Files from BitCom](#)  
[Creating and Editing Script Files](#)

## Running Script Files from BitCom

The following shows how to start a script file from BitCom.

### **To run a script file from BitCom:**

1. Choose Invoke Script File... from the Scripts menu.  
BitCom will open the Invoke Script File dialog box, which will list all the script files in the BitCom directory.
2. Select a script file and click on "OK."  
BitCom will then run the script file.

To stop a script file from running, choose "Abort Script File" from the Scripts menu.

**Note:** You can also start a script file with a function key.

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### **See Also**

[Creating Function Keys](#)

[Automatically Running a Script File](#)

## Automatically Running a Script File

You can also run a script file automatically when you start BitCom from the Program Manager. Just specify a script file in BitCom's command line.

For example, if you add "@COMPSEVP.SCP" to the end of BitCom's command line, BitCom will automatically open the CompuServe record and start dialing when you click on its icon. And if you include a log-on script file in the CompuServe record (e.g., COMSERV.SCP), BitCom will also enter your user ID and password. So to log on to CompuServe, all you have to do is click on the BitCom icon.

If you regularly call online services, you can create several BitCom icons, each with its own script file. For example, you might have a BitCom icon for CompuServe, one for EasyLink and another for general use. You could also create a BitCom icon called Remote and add the REMOTE.SCP script file to its command line.

### To assign a script file to a BitCom icon:

1. Open the BitCom program group in the Program Manager.
2. Copy the BitCom icon.  
You can copy the BitCom icon by selecting it, holding down [Ctl], and dragging the icon with your mouse. You can also copy it by selecting the icon and choosing the Copy command from the File menu of the Program Manager.
3. Select the new BitCom icon.
4. Choose "Properties..." from the File menu of the Program Manager.  
The Program Item Properties dialog box will appear.
5. At the end of the "Command Line," add the at-sign (@) followed by the name of the script file you want to start.  
A script file must be preceded by an at-sign (@). There is no space between the at-sign and the script file. A space does, however, separate BitCom's execution file and the at-sign.  
  
To avoid confusion, change the description of the BitCom icon in the Description text-entry box above. For example, you may want to change it from "BitCom" to "BitCom (CompuServe)" or just "CompuServe."
6. Click on "OK."  
You will see the new BitCom icon in the Program Manager.  
  
When you click on that icon, BitCom will start the script file you assigned it.

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### See Also

[Logging on with a Script File](#)

[Creating a Log-on Script File](#)

[Running Script Files from BitCom](#)

[Creating Function Keys](#)

## Creating and Editing Script Files

To edit a script file, choose "Script Editor..." from the Scripts menu. The File Open dialog box will appear, listing all the script files in BitCom's directory.

Select the script file you want to edit and click on "OK." Windows Notepad will then open the selected file.

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### See Also

[Creating a Log-on Script File](#)

[Programming Tips and Guidelines](#)

[BitCom's Script Files](#)

[Script Commands](#)

[Reserved Symbols](#)

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## Programming Tips and Guidelines

The following are some suggestions for creating script files.

### Trace Your Steps

Before creating script file, you may want to use BitCom's File Capture in Raw mode. File Capture can record everything that happens during a communication session. If, for example, you wanted to create a log-on script file, you would log on to the service while recording all the steps with the "Capture File" option. Also, keep track of any pauses during the log-in process. You can then combine your notes and a printed copy of the Captured file and use them to help create a script file.

### Keep Your Files Small and Simple

Instead of creating one file to perform a series of communication tasks, string together small files with the INVOKE command. Each of these files should have only one purpose. You can later mix and match these files to create longer, more complicated files. For example,

```
INVOKE ONLINPAS.SCP    {Asks for your password}
```

One file can INVOKE another up to nine levels deep.

### Upper- and Lower-case Letters

To help organize your files, we suggest putting commands and file names in ALL CAPS, variables and constants in lower-case letters, and comments in both upper- and lower-case letters.

**Note:** The commands CWAIT and WHEN are case-sensitive. You must enter the exact prompt that the host will send. For example, CWAIT("PASSWORD") is different from CWAIT("Password").

### One Statement Per Line

Use only one statement on each line. This helps keep files organized and makes it easier to find errors. If you do put two commands on one line, separate them with a semicolon (;). Also, use a blank line to separate sections of a file.

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#### See Also

[Creating and Editing Script Files](#)

[Script Commands](#)

[Reserved Symbols](#)

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## Reserved Symbols

Several symbols have special, or "reserved," meaning in BitCom's script language. For example, double quotes (") mark the beginning and end of a string of text, and a dollar sign (\$) precedes a hex value.

To send a carriage return to the host, enter

```
"$0d"
```

To send a line-feed character (Hex 0A), enter

```
"$0a"
```

To send a string of characters followed by a carriage return and a line feed, enter

```
"GO MAIL $0d$0a"
```

The reserved symbols are as follows:

Symbol	Name	Meaning
"	Double quote	Marks the beginning and end of a text string that BitCom will send to the host
'	Single quote	Marks the beginning and end of a key assignment
;	Semicolon	Marks the end of a command line
@	At sign	Begins a variable
()	Parentheses	Begin and end an argument
{ }	Braces	Begin and end a comment
\$	Dollar sign	Begins a hex value
\	Back slash	Begins a decimal value
+	Plus	Addition
-	Hyphen	Subtraction
*	Asterisk	Multiplication
=	Equals	Values equal
>	Greater than	First value is greater
<	Less than	First value is less
<>	Not equal to	Values not equal
>=	Greater or equal to	First value is greater than or equal to the second
<=	Less or equal to	First value is less than or equal to the second

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### See Also

[Script Commands](#)

[Variables](#)

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[BitCom's Script Files](#)

## Variables

BitCom uses four kinds of variables. Argument variables are given a value when you invoke a script file. Built-in variables have predefined values, such as the current baud rate. Scratch variables are assigned a value in a script file. Key variables are assigned a command, escape sequence or a string of text.

[Scratch Variables](#)

[Built-in Variables](#)

[Key Variables](#)

[Argument Variables \(@1 to @9\)](#)

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### See Also

[Script Commands](#)

[Reserved Symbols](#)

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[BitCom's Script Files](#)



## Scratch Variables (@a through @z)

Scratch variables store numbers or strings of text. These variables are useful because they can later be changed in the file. The following are examples:

```
@a = EXPR(@A + 1)
```

```
@b = GETLINE
```

```
@c = 1
```

---

### See Also

[Script Commands](#)

[Reserved Symbols](#)

[Constants](#)

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[BitCom's Script Files](#)

## Built-in Variables

Built-in variables store current information about BitCom's communication parameters (such as the baud rate and parity) and the screen characteristics. These variables let you change the communication parameters without entering BitCom's menus. For example,

```
@data = 8
```

Built-in variables can help you make decisions within your program. You can also assign the value of a built-in variable to a scratch variable. For example,

```
@a = @parity
```

**Note:** If you use the SELECT command to open a phone book record and then use built-in variables to change its parameters, BitCom will save the changes.

BitCom's built-in variables:

<b>Name</b>	<b>Type</b>	<b>Contents</b>
@autofil	String	Name of automatic log-on file, without the extension <b>.SCP</b>
@autolf	Number	Auto linefeed filter: 0 = off, 1 = on
@baud	Number	Current baud rate
@bell	Number	Current bell setting: 0 = off, 1 = on
@blankln	Number	Blank line filter: 0 = off, 1 = on
@breakt	Number	Number of hundredths of seconds that a break signal will last
@capmode	Number	Capture mode: 0 = replace, 1 = append
@capname	String	Name of the captured file
@cdate	String	Current date in the format "mm/dd/yy"
@col	Number	Current cursor column position
@comport	Number	COM port: 1 = COM1, 2 = COM2, 3 = COM3, 4 = COM4
@conn	Number	Connection status: 0 = not connected, 1 = connected, 2 = dialed, line busy
@crec	Number	Current record number
@csend	Number	Character delay: 1 = wait for echo, 0 = none or number of hundredths to wait
@ctime	Number	Current time in the format "hh:mm am/pm"
@data	Number	Number of data bits
@desc	String	Current record description
@dldir	String	Subdirectory to which files are downloaded
@echo	Number	0 = echo off, 1 = echo on
@emulate	String	Emulate file name without extension
@exptab	Number	Expand tabs filter: 0 = off, 1 = on
@input	Number	Input filter: 0 = off, 1 = on
@ldate	String	Last connected date: "mm/dd/yy"
@lsend	Number	Line delay: 0 = none, 1 = wait for line feed, 2 = manual
@ltime	String	Last connect time: "hh:mm am/pm"
@markbuf	String	Text marked from the scroll buffer
@maxbuf	Number	Maximum number of lines in the scroll buffer
@mcol	Number	Maximum number of columns on the current screen
@mode	Number	0 = answer, 1 = dial
@mrow	Number	Maximum number of rows on the current window. Must be fewer than @maxrow
@note1	String	First line of notes
@note2	String	Second line of notes
@output	Number	Output filter: 0 = off, 1 = on
@parity	String	Current parity: N = none, E = even, O = odd, M = mark
@phone	String	Current phone number
@recid	String	Current Record ID
@redial	Number	Number of seconds BitCom will wait before redialing

@row	Number	Current cursor row number
@stop	Number	Number of stop bits
@upcase	Number	Uppercase filter: 0 = off, 1 = on
@winkeys	Number	Windows shortcut keys mode: 0 = uses BitCom's defined shortcut keys, 1 = uses Menu Bar's shortcut keys

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#### See Also

[Script Commands](#)

[Reserved Symbols](#)

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[BitCom's Script Files](#)

## Key Variables

Key variables can be used to:

- Assign commands to a key or a combination of keys. When you press a defined key variable, BitCom executes the assigned command (e.g., [Alt-B] for SBREAK).
- Assign an escape sequence to a key for terminal emulation.
- Invoke another script file.
- Assign a string of text to a key or a combination of keys.

You can use the following keys and key combinations as key variables:

### Function Keys (alone or with the Alt, Shift or Ctrl key)

@F1 - @F10  
@Alt-F1 - @Alt-F10  
@Shift-F1 - @Shift-F10  
@Ctrl-F1 - @Ctrl-F10

### A - Z and 0 - 9 with the Alt or Ctrl Key

@Alt-A - @Alt-Z  
@Ctl-A - @Ctl-Z  
@Alt-0 - @Alt-9

### Other Keys

When the Num Lock is on, you can use the following keys:

@NL-0 - @NL-9  
@NL-Dsh, @NL-Pls ("+") and @NL-DOT (".")

When the Num Lock is off, you can use the following keys:

@Home	@End	@PgUp	@PgDn
@UpArr	@RiArr	@DnArr	@LfArr
@Esc	@Break	@Rtab	@Ltab

**Note:** When assigning commands to key combinations, avoid using the same Alt+letter combinations that BitCom's menu bar uses. For example, [Alt-F] opens the File menu and [Alt-P] opens the PhoneBook menu.

Below is an example of a key assignment.

```
@CTL-H = '@a = TYPECR("Hello")'
```

Text enclosed in single quotes (an S-string) is assigned to the key combination **[Alt-D]**. Text in double quotes (a D-string) will be sent to the host computer.

If you give the name of a key by itself, BitCom invokes it as if you had pressed it on the keyboard. If it is in double quotes, however, BitCom will send the characters to the host computer.

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### See Also

[Script Commands](#)  
[Reserved Symbols](#)  
[Constants](#)  
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[BitCom's Script Files](#)

## Argument Variables (@1 to @9)

Argument variables make script files more flexible by letting you include arguments with script commands. For example, the script file DOWNLOAD.SCP uses two arguments, the first to specify the file and the second to specify the file-transfer protocol. For example,

```
C:\BCOMWIN\BCOMWIN.EXE @DOWNLOAD.SCP REPORT.DOC XMODEM
```

In this example, BitCom automatically places the REPORT.DOC argument in the variable @1 and XMODEM in variable @2.

```
SENDFILE (@1, @2)
```

You can include up to nine argument variables within one file. They cannot be assigned values.

---

### See Also

[Script Commands](#)

[Reserved Symbols](#)

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[BitCom's Script Files](#)

## Constants

Constants are used to set the value of a variable, such as @a=3. They are also used to compare the value of a variable, such as IF (@b=0) GOTO :badfile.

Constants can be either numbers (only integers) or a string of text. Text strings can be enclosed in double quotes, single quotes or no quotes. Constants enclosed by single quotes are assigned to a variable, and constants enclosed by double quotes are sent to the host computer. Remember that text strings enclosed in quotes must end and begin with a quote.

In text strings enclosed by double quotes (a D-string), use hexadecimal numbers to represent ASCII characters. For example, "\$0d" is a return character. This is useful when sending special characters to the host computer or when searching for a special character. In text strings enclosed by single quotes (S-string), BitCom will not substitute hexadecimal characters.

BitCom expects variables to be followed by either a space or the end of the string. If you want a variable to follow a character, the variable must be followed by a period. Below are examples:

@a = "def" assigns "def" to "@a"

"abc@a" is "abcdef"

"abc@a.ghi" is "abcdefghi"

---

### See Also

[Script Commands](#)

[Reserved Symbols](#)

[Variables](#)

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[BitCom's Script Files](#)

## Statements

BitCom's script files are made up of three types of statements – variable statements, assignment statements and function statements.

### Assignment Statements

An assignment statement assigns a value to a variable. For example,

```
@a=6
```

assigns the value "6" to the scratch variable "@a."

The variable can be a built-in variable, a key variable or a scratch variable. The value can be a number, a string in single quotes, a string in double quotes, another variable or a function name. Examples of valid assignments are:

```
@baud = 14400
Note = "We tried to connect at @Cdate"
Alt-S = 'SENDFILE(prompt("Send Filename?"), "Zmodem")'
```

The space after the equal sign (=) is optional.

### Variable Statements

Scratch variables and key variables can act as statements. A scratch variable can hold a string of text, which can be sent to the host computer. For example,

```
@a = "Bye"           {Assigns the text "Bye" to variable @a}
@a                  {Sends the text "Bye" to the host}
```

A key variable, when used as a statement, acts as if you had pressed the specified keys. For example:

```
Alt-H = 'ATO$0D'      {Assigns the hang-up string to Alt-H}
Alt-H                {Sends the hang-up string to modem}
```

### Command Statements

You invoke BitCom's commands by giving the command's name. Some commands need arguments. Arguments must be enclosed in parentheses and separated by commas. For example:

```
TWAIT(5,"sec")
```

These functions always return a value, which is either the result of the function or a return code indicating the success or failure of the task.

---

#### See Also

[Script Commands](#)  
[Reserved Symbols](#)  
[Variables](#)  
[Constants](#)  
[BitCom's Script Files](#)

## BitCom's Script Files

The following are the script files that BitCom includes. These files can be used with little or no editing. They can also serve as models for script files that you write yourself.

[ANSWER.SCP](#)  
[BBSGET.SCP](#)  
[BBSRECV.SCP](#)  
[BIXLOGON.SCP](#)  
[COMSERV.SCP](#)  
[CSTYMON.SCP](#)  
[DYMLOGON.SCP](#)  
[EASYLINK.SCP](#)  
[GENIEON.SCP](#)  
[HANDYKEY.SCP](#)  
[MCILogon.SCP](#)  
[ONLINPAS.SCP](#)  
[PASSWORD.SCP](#)  
[SENDFILE.SCP](#)

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### See Also

[Creating a Log-on Script File](#)  
[Creating and Editing Script Files](#)  
[Script Commands](#)  
[Reserved Symbols](#)  
[Variables](#)  
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[Statements](#)



## ANSWER.SCP

This script file lets people call your computer and download files. The ANSWER.SCP file must be placed in a phone record that is prepared to receive a call. When a call comes in, BitCom asks for a password. If the caller enters the correct password, BitCom then asks which ASCII file to send.

In the seventh line, you can change the password from "JONATHAN" to another word.

**Note:** This script file allows users to download only ASCII (plain-text) files. To let users also download binary files, use BitCom's Host Mode.

```
TWAIT(2,"sec");
@c=1                      {counter for number of attempts for password}
:try
@RETURN
"ENTER PASSWORD:"        {get password}
@a=GETLINE
IF (substr(@a, 1, 8) <> "JONATHAN") GOTO :badpw
GOTO:ok
```

```
{bad news}
:badpw
"$0d$0ABAD PASSWORD";@return
@c = expr(@c+1);
IF (@c > 5) GOTO :kill      {if more than 5 tries, hang up}
                           {the line}
GOTO :try                  {now we have a good pass word}
```

```
:ok
CLEAR
TYPECR("LOGON OK");
"$0d$0a"
"$0d$0a"
"WELCOME TO BITCOM$0d$0a"
"What file would you like?"
@a=GETLINE
@b=EXIST(@a)
"$0d$0a"
IF (@b = 0 ) GOTO:badfile
IF (sendfile(@a, "ASCII") = -1)
"Cannot open file$0a$0d"
EXIT
```

```
:kill
"Too many attempts..."
HANGUP
EXIT
```

```
:badfile
"File Not Found$0d$0a";
EXIT
```

---

[See Also](#)

[Creating and Editing Script Files](#)  
[BitCom's Script Files](#)

## BBSGET.SCP

This script file tells a BBS (bulletin board service) to download a specified file to you. If no file name is given, it will ask you for one.

```
@a = @1                {argument 1 move to variable @A}
IF (@1 <> "") GOTO :noprompt {if argument is null, go to}
                           {noprompt}

@a = prompt("Enter receive filename: ");
                           {ask for file name}
IF (@a = "") EXIT;        {if the file does not}
                           {exist, BitCom will exit}

@b = prompt("Enter X for Xmodem, A for ASCII: ");
                           {file Xmodem or ASC}
IF (@b <> "x" and @b <> "a") EXIT "Don't understand"@b"";
                           {check}

:noprompt                {no prompt}
{asks the host to download}
"d;@a"; @return;
cwait("?"); @b; @return;

{ASCII file transfer}
if (@b ="x") goto :Xmodem
    CWAIT("?");
    @return;
    recvfile(@a, "ascii", "$07$0D");
    EXIT;

:Zmodem
    CWAIT("...");
    recvfile(@a, "xmodem");
```

## BBSRCV.SCP

This script file downloads a file from the BBS you are logged on to. If a file name is not given, BitCom will ask for one. Files will be downloaded with the Xmodem protocol, but Kermit can be used instead by using the KERRECV command on the last line.

```
@a = @1
IF (@1 <> "") goto :noprompt
@a = prompt("Enter receive filename:");
IF (@a = "") exit;
:noprompt
"d;@a"; @return;
CWAIT("?"); "x"; @return;
CWAIT("...");
RCVFILE(@a, "Zmodem");
```

---

### See Also

[Creating and Editing Script Files](#)

[BitCom's Script Files](#)

## BIXLOGON.SCP

This file is used to log on to BIX, the BYTE Information Exchange. It automatically enters your user name and password. Replace the X's with your user name and the Y's with your password. This file also invokes the [HANDYKEY.SCP](#) file.

If you want your mail and messages to be automatically downloaded as well, delete the brackets around the last line, {INVOKE BIXDOWNL.SCP}. Deleting the brackets tells BitCom to treat the line as a command instead of as comment.

TWAIT(5,"sec")	{Wait for 5 seconds}
"A"	{Send "A" character}
CWAIT("please log in:")	{Wait for prompt from}
	{Tymnet}
"BIX\$0d"	{Tells Tymnet what string to use}
CWAIT("Name?")	{Waits for prompt from BIX}
"xxxxxxx\$0d"	{Replaces "XXX"s with user name}
CWAIT("Password:")	{Waits for Password prompt}
"yyyyyyy\$0d"	{Replaces "YYY"s with password}
{"\$0d"}	{If not using BIXDOWNL, add}
	{return here to scroll past}
	{initial text.}
INVOKE HANDYKEY	{Invokes an script file that}
	{defines function keys}
{INVOKE BIXDOWNL.SCP}	{Delete brackets from this}
	{command to activate the script that downloads BIX}
	{mail and messages}

---

### See Also

[Creating a Log-on Script File](#)  
[Creating and Editing Script Files](#)  
[BitCom's Script Files](#)

## COMSERV.SCP

This file automatically logs you on to the CompuServe network. Replace the X's with your user name and password.

This file also invokes the [HANDYKEY.SCP](#) file.

TWAIT(1,"sec")	{Wait for 1 second}
"\$03"	{Send Ctrl-C character}
CWAIT("User ID:")	{Wait for "User ID:" prompt}
"xxxxxx,xxxxxx\$0d"	{Replace "XXX"s with User ID}
CWAIT("Password:")	{Wait for "Password:" prompt}
"xxxxxx,xxxxxx\$0d"	{Replace "XXX"s with Password}
INVOKE HANDYKEY	{Invokes a script file which}
	{defines keys}

---

### See Also

[Creating a Log-on Script File](#)

[Creating and Editing Script Files](#)

[BitCom's Script Files](#)

## CSTYMON.SCP

This file automatically logs you on to CompuServe through the Tymnet network. Replace the X's with your user name and the Y's with your password.

This file also invokes the [HANDYKEY.SCP](#) file.

TWAIT(1,"sec")	{Waits for one second}
"a"	{Sends "a" character}
CWAIT(":".)	{Waits until Tymnet prompt appears}
"CIS\$0d"	{Sends "CIS" for CompuServe}
	{Information Service}
CWAIT("Password:")	{Waits for "Password:" prompt}
"yyyyyy+yyyyyy\$0d"	{Replaces "YYY"s with Password}
INVOKE HANDYKEY	{Invokes a script file that defines keys}

---

### See Also

[Creating a Log-on Script File](#)

[Creating and Editing Script Files](#)

[BitCom's Script Files](#)

## DYMLOGON.SCP

This file logs you on to the Dial-Your-Match bulletin board system. Replace the X's with your account code and the Y's with your password. This file also invokes the [HANDYKEY.SCP](#) file.

**Note:** You may need to modify this file to work with your DYM bulletin board. For example, you may need to change the prompt text, or add or remove carriage returns (\$0d).

CWAIT("; N for nonstop;")	{Wait for prompt}
"N\$0d"	{Nonstop until Account Code prompt}
CWAIT("a new user:")	{Wait for Account Code prompt}
"xxxxxx\$0d"	{Replace "xxx"s with Account Code}
CWAIT("password:")	{Wait for Password prompt}
"yyyyyy\$0d"	{Replace "yyy"s with Password}
INVOKE HANDYKEY	{Invokes a script file that defines keys}

---

### See Also

[Creating a Log-on Script File](#)  
[Creating and Editing Script Files](#)  
[BitCom's Script Files](#)

## EASYLINK.SCP

This file logs you on to EasyLink. Replace the X's with your account number and the Y's with your password.

This file also instructs BitCom to print messages as they are received. To receive a file without printing, put the printer commands in brackets "{}". This file also invokes the [HANDYKEY.SCP](#) file.

```
CWAIT("ID?")
"00 EIDxxx yyyyyy.yyyyyy$0d" {enter your}
                                {account number and password}

CWAIT("PTS")
TRACE(1)
"/scan$0a"
TYPE("PLEASE TURN ON PRINTER")
CWAIT("PTS")
PRINTER(1)                      {Print function on }
"/READALL$0a"                   {Reads message, prints and captures data}
CWAIT("PTS")
PRINTER(0)                      {Print function off}
INVOKE HANDYKEY
```

---

### See Also

[Creating a Log-on Script File](#)  
[Creating and Editing Script Files](#)  
[BitCom's Script Files](#)



## GENIEON.SCP

This file logs you on to GENie, General Electric's online information service. Replace the X's with your user number and password.

```
CWAIT("U#=")           {Wait until user number prompt appears}  
"xxxxxxx,xxxxx$0d"     {Replace with correct user number}  
                        {and password when you get them.}
```

---

### See Also

[Creating a Log-on Script File](#)  
[Creating and Editing Script Files](#)  
[BitCom's Script Files](#)

## HANDYKEY.SCP

This file assigns commonly used script commands to key combinations, such as [ALT-F1] or [ALT-F2]. Many of the log-on script files invoke this script file. You may want to print this file for easy reference.

```
{This file defines some handy function keys.}
{Add to it to make your own definitions. Print}
{this file and keep it available for reference.}
{Alt-F1 prompts you for a file, then sends it}
{with XModem}
@Alt-F1='SENDFILE(PROMPT("Enter name of file to send:"), "XModem")'

{ Alt-F2 sets Echo on.}
@Alt-F2='@Echo = 1;'

{ Alt-F3 sets Echo off.}
@Alt-F3='@Echo = 0;'

{ Alt-F5 hangs up. (Sends hang-up string to modem).}
@Alt-F5='HANGUP; "ATO$0D" '

{ Alt-F6 invokes the script file TEMP.SCP. You can add}
{ commands to this file using Windows Notepad or}
{ another text editor.}
{ To add commands, start Windows Notepad, open or}
{ create the file TEMP.SCP, enter commands, and save}
{ the file. You can then press Alt-F6 to invoke}
{ TEMP.SCP}
@Alt-F6='INVOKE TEMP.SCP'

{ Alt-F7 runs an Script file which sends a file to}
{ the host.}
@Alt-F7='INVOKE SENDFILE.SCP'

{ Alt-F8 displays the current time and date.}
@Alt-F8='TYPECR("Current time is @Cdate @Ctime")'

{ Alt-F9 clears the screen.}
@Alt-F9='CLEAR'
```

---

### See Also

[Creating a Log-on Script File](#)  
[Creating and Editing Script Files](#)  
[BitCom's Script Files](#)

## MCILOGON.SCP

This file logs you on to MCI Mail, an E-mail service. Replace the X's with your user name and the Y's with your password.

```
CWAIT("user name:")    {Wait for the prompt "Please enter your"}
                        {user name:}
"XXX$0d"                {Replace "xxx"s with your user name}
CWAIT("Password:")      {Wait for the "Password:" prompt}
"YYY$0d"                {Replace "y"s with your password}
```

---

### See Also

[Creating a Log-on Script File](#)  
[Creating and Editing Script Files](#)  
[BitCom's Script Files](#)

## ONLINPAS.SCP

This file asks for your password and then sends it to the online service.

This file can help prevent someone from finding your password in one of your log-on files. Using the INVOKE command, place this file where you would enter your password (INVOKE ONLINPAS).

```
SETCOLOR(0);           {Sets the screen to non-display}
CLEAR                  {Puts SETCOLOR into effect}
@z=PROMPT("Password: "); {Get password}
"@z$0d"               {Sends password to online service}
CLEAR
```

---

### See Also

[Creating a Log-on Script File](#)  
[Creating and Editing Script Files](#)  
[BitCom's Script Files](#)

## PASSWORD.SCP

This file asks for a password and then checks it against the correct password. The user has three chances. The correct password is entered in the script file that invoked this file.

```
@C=0                                {Sets counter of attempts to 0}

:Loop1
@C=EXPR(@C+1)                       {Number of attempts}
IF (@C > 3) GOTO :Rejected           {If too many attempts, exit}
@a=PROMPT("Enter password: ");      {Gets password from user}
IF (@a <> @1) GOTO :Loop1            {If password parameter}
                                   {do not matched, retry. If password matches,}
                                   {execution will "fall through" to this step}

GOTO :PassWordOK                     {Jumps to end}

{If password is incorrect, execution jumps to this step}
:Rejected
TYPE("Incorrect password entered. Hanging up.")
HANGUP                               {Tells BitCom to hang up}
"AT0$0d"                             {Tells modem to hang up}

:PassWordOK                          {Normal execution continues below}
```

---

### See Also

[Creating a Log-on Script File](#)  
[Creating and Editing Script Files](#)  
[BitCom's Script Files](#)

## SENDFILE.SCP

This script file asks the host system which file it would like to download from your system. The file then checks if the file exists. If it does, it sends the file in the ASCII format. If BitCom cannot find the file, it sends the message "Cannot open file" to the host.

```
"What file would you like?"      {Asks host for file name}
@a=getline                      {Saves the name to variable @a}
@b=EXIST(@a)                    {If the file exists, @b is non-zero}
"$0d$0a"
IF (@b = 0 ) GOTO:badfile
IF (sendfile(@a, "ASCII") = -1)
"Cannot open file$0a$0d";
TYPECR("End of send file")
EXIT

:badfile
"File Not Found$0d$0a";          {Tells host the file is not}
                                  {found}
```

---

### See Also

[Creating a Log-on Script File](#)

[Creating and Editing Script Files](#)

[BitCom's Script Files](#)

# The Script Commands

The following is a list of BitCom's script commands, grouped according to function.

## Branching

<u>CANCEL</u>	Cancels all script files and returns you to the BitCom window.
<u>EXIT</u>	Exits the current script file.
<u>GOTO</u>	Tells BitCom to "go to" the given label and then continue processing.
<u>INVOKE</u>	Starts, or "invokes," a script file.

## Conditional

<u>IF</u>	Defines a command sequence dependent on a specific condition or event.
<u>ELSE</u>	Executes a statement if the first condition in an IF command is not met.

## Connection

<u>DOCOMM</u>	Begins a communication session with the phone book record selected with the SELECT command.
<u>HANGUP</u>	Sends the hang-up string to the modem.
<u>SELECT</u>	Selects the record to be used by the DOCOMM command.
<u>SELPBK</u>	Opens a specified phone book.

## Display I/O

<u>CLEAR</u>	Clears your screen, but not the remote PC.
<u>POSCUR</u>	Changes the current position of the cursor.
<u>TYPE</u>	Displays the given string without a carriage return.
<u>TYPECR</u>	Displays the given string with a carriage return.

## Emulation

<u>SCROLL</u>	Turns scrolling on and off.
---------------	-----------------------------

## Event Wait

<u>CWAIT</u>	Waits for the host to send a given string.
<u>TWAIT</u>	Waits for a given length of time to pass.
<u>WAIT</u>	Waits for a given time, e.g., 11:57 p.m.
<u>WWAIT</u>	Waits for a given length of time or until BitCom receives a character.

## Event Execution

<u>CWHEN</u>	Disables the WHEN function.
<u>WHEN</u>	Waits for a given string to appear and then executes a given command.

## File Handling

<u>CAPTURE</u>	Starts or stops BitCom's Capture File option.
<u>FCLOSEA</u>	Closes the file opened with the FOPENA command.
<u>FCLOSEI</u>	Closes the file opened with the FOPENI command.
<u>FCLOSEO</u>	Closes the file opened with the FOPENO command.
<u>FGETC</u>	Reads one character from a given file and stores it to a scratch variable.
<u>FGETS</u>	Reads one line of text from a given file and stores it to a scratch variable.
<u>FOPENA</u>	Opens a given file and appends information to it.
<u>FOPENI</u>	Like the FOPENA command, except it opens read-only files.
<u>FOPENO</u>	Opens a given file so the FPUTC and FPUTS commands can write to it.

FPUTC Writes a given character to a given file.  
FPUTS Writes a given string of characters to a given file.

## File Transfer

KEREND Turns the Kermit Server off.  
KERGET Tells the Kermit Server to ask the host to send a given file.  
KERRECV Waits for the host to send one or more files with the Kermit protocol.  
KERSEND Sends one or more files to the host with the Kermit protocol.  
RCVFILE Receives a file with the ASCII, Xmodem or Ymodem protocol.  
SENDFILE Sends a file with the ASCII, Xmodem or Ymodem protocol.

## Flags and Switches

CHRMAP Enables or disables control-character filtering and terminal emulation.

## Miscellaneous

BELL Sounds the computer's speaker.  
EXPR Calculates the given expression and returns a value.  
PRINTER Enables or disables print capture.  
PROMPT Displays a given string of text and then waits for a carriage return.  
TRACE Traces (displays) the currently running script file. Normally, script files run transparently.

## Port I/O

EXIST Checks whether a specified filename exists on your disk.  
GETCH Saves a character BitCom receives.  
GETCHW Waits to receive a character.  
GETLINE Saves a line of text that ends with a carriage return or line feed from the host computer.  
GETPASS Saves a line of text that ends with a carriage return or line feed from the host computer. BitCom will not echo these character on screen.  
SBREAK Sends a break signal to the host computer.

## String Handling

CONCAT Used to concatenate (unify) two arguments and return a result.  
STRFIND Searches a string of text for a given string of text.  
STRLEN Determines the number of characters in a given string.  
SUBSTR Searches a certain part of a string.

## Time Limit

CONTIME Sets a time limit for the current BitCom session.



## ABORT

**Type:** BRANCHING

**Syntax:** ABORT

**Purpose:** Stops all currently running script files and closes BitCom.

**Example:** This example closes BitCom.

```
SELECT ("EASYLINK")
DOCOMM
:LOOP
IF (@CONN=1) GOTO :DONE
TWAIT(2,"SEC")
GOTO :LOOP
:DONE
ABORT
```

## BELL

**Type:** MISCELLANEOUS I/O  
**Syntax:** BELL  
**Purpose:** Sounds the computer's speaker. This function will always return a zero.  
**Example:** In the file DIAL.SCP, the label :didit shows:

```
@bell = 1;  {turns bell on}
```

In the following example, BitCom sounds the bell after a file is received.

```
RCVFILE("PROMPT("Enter filename") ", "ZMODEM")  
BELL
```

## CANCEL

**Type:** BRANCHING

**Syntax:** CANCEL[(MESSAGE)]

**Purpose:** Stops all script files that are running. The message argument is optional. It can be a string or a variable name. If you include a message, it will appear in the terminal screen.

**Example:** In this example, if a file is not found, BitCom will cancel the script file.

```
IF (exist("command.com")=0) GOTO :BADFILE
:BADFILE
"File Not Found$0d$0a";
cancel
```

## CAPTURE

**Type:** FILE HANDLING FUNCTION

**Syntax:** CAPTURE(1)

CAPTURE(0)

**Purpose:** Starts or stops the capturing of data to a file. Capture(1) begins capturing; Capture(0) stops capturing. BitCom captures data to the file that you specify with the capture-name variable, @capname.

**Example:** This example will begin the capturing of a file after a connection is made.

```
IF (@CONN=1) CAPTURE (1)
```

The following example stops capturing after BitCom receives "PT":

```
CWAIT ("PTS")
```

```
CAPTURE (0)
```

## CHRMAP

**Type:** FLAGS & SWITCHES

**Syntax:** CHRMAP(0)  
CHRMAP(1)

**Purpose:** Enables or disables character filtering and terminal emulation. Character filtering tells BitCom to ignore and discard control characters.

CHRMAP(0) disables character filtering and emulation; CHRMAP(1) enables it. If you are using terminal emulation, character filtering is automatically enabled. The INBUFFER section of the emulation file determines which characters are filtered and translated.

By using CHRMAP(0), you can temporarily disable emulation and display all control characters on the screen. They will also be echoed to the printer if the print function is on. This function is especially useful if you want to print a formatted file from a host computer.

**Example:** CHRMAP(0) {DISABLED}  
CHRMAP(1) {ENABLED}

**Note:** If you disable character-map filtering, make sure you enable it again so that terminal emulation will work correctly.

## CLEAR

**Type:** DISPLAY I/O

**Syntax:** CLEAR

**Purpose:** Clears BitCom's screen, but not the scroll buffer. (To clear the scroll buffer, choose the Clear Buffer command from the Edit menu. )

**Example:** The statement assigns the command CLEAR to the key combination of @ALT-Z. When you press [Alt-Z], the screen will clear.

```
@ALT-Z ='CLEAR' {Clears Screen}
```

## CONCAT

**Type:** STRING HANDLING

**Syntax:** CONCAT(arg1,arg2)

**Purpose:** Used to concatenate (unify) argument two to argument one and return the result.

**Example:** @R = concat(@a,@b)

The string in variable @b is appended to the string in variable @a. The result will be stored in @R. If @a is "How are you" and @b is "today," then @R will contain the string "How are you today."

## CONTIME

**Type:** TIME LIMIT

**Syntax:** CONTIME(n)

**Purpose:** Limits the number of minutes BitCom spends online. If the connect time exceeds the time specified in this command, BitCom hangs up.

**Example:** In this example, the online session is limited to 30 minutes. After that, BitCom disconnects.

```
SELECT ("EASYLINK")
DOCOMM
:LOOP
IF (@CONN=1) GOTO :DONE
TWAIT (2,"SEC")
GOTO :LOOP
:DONE
CONTIME (30)
```



## CWAIT

**Type:** EVENT WAIT

**Syntax:** CWAIT(string)

**Purpose:** Waits for the host to send a given string. It always returns a zero. Note that the CWAIT command is case-sensitive. You must enter the exact prompt that the host will send. For example, CWAIT("PASSWORD") is different from CWAIT("Password").

**Example:** The following instructs BitCom to wait for a question mark (?):

```
CWAIT("?")  
WAIT("PLEASE LOG ON")
```

The string can be anywhere within a line or lines. We suggest that you find a unique phrase or string to wait for. The string that this function waits for must exactly match the string the host computer sends. It is case-sensitive. For example, "log on" and "LOG ON" are not the same.

## CWHEN

**Type:** EVENT EXECUTION

**Syntax:** CWHEN("string")

**Purpose:** Disables the WHEN command. (See the WHEN command for more details.)

## DOCOMM

**Type:** CONNECTION

**Syntax:** DOCOMM

**Purpose:** Uses the phone book record specified with the SELECT command to either place BitCom in answer mode or tell BitCom to start dialing, depending on the entry's default connect status. You can specify the default connection status in the Default Connect group of a phone book record's parameters dialog box. You can use this command only after the SELECT command has been executed to specify the phone book record.

**Note:** If there are two or more data numbers, BitCom will dial the first.

**Example:** This example selects a record (EASYLINK), dials the number and checks for a connection.

```
SELECT ("EASYLINK")
DOCOMM
:LOOP
IF (@CONN=1) GOTO :DONE
TWAIT (2, "SEC")
GOTO :LOOP
:DONE
```

The DOCOMM command will immediately return to the next line of the script file. You can use the IF statement to check whether the line has connected, as shown in the example above. The loop must contain the two-second TWAIT statement to give the modem time to connect.

## ELSE

**Type:**

MISCELLANEOUS

**Syntax:**

See [IF](#) command for details

## EXIST

**Type:** PORT I/O

**Syntax:** EXIST(filename)

**Purpose:** Checks whether a specified filename exists on your disk. If the file exists, the function will return a 1; if it does not exist, the function will return a 0. The file-name argument cannot contain wildcard characters.

**Example:** In this example, taken from the file ANSWER.ACT, the line BitCom receives will be the filename that is assigned to the scratch variable @a. The next line checks whether the filename exists with the EXIST function.

```
@a = GETLINE
@b = EXIST(@a)
IF (@b=0) "File Does Not Exist" GOTO :BYE
IF (EXIST("LOTUS.DAT")=1) GOTO :DoIt
```

In this example, if the file LOTUS.DAT exists, the program will jump to the label :DoIt.

## EXIT

**Type:** BRANCHING

**Syntax:** EXIT [message]

**Purpose:** Stops the currently running script file. If the EXIT command is used in a script file that was invoked from another script file, it will return control to the previously running script file. A message argument is optional. It can be a string or a variable name. If a message is included, BitCom will show it on the Terminal Screen.

**Example:** In this example, if a proper filename is not found, BitCom will stop the script file and return to either the BitCom window or the previously running script file.

```
:badfile  
"File Not Found$0d$0a"  
EXIT
```

## EXPR

**Type:** MISCELLANEOUS

**Syntax:** EXPR(expression)

**Purpose:** Calculates the given expression and returns its value. The expression may consist of constants, variables and functions separated by an operator. Valid operators are:

+	Addition
-	Subtraction
*	Multiplication
/	Division

Multiplication and division are performed before addition or subtraction, but parentheses can control the order of the calculations.

**Example:** In this example, the scratch variable @c is assigned to the expression @c +1.

```
@c = EXPR (@c + 1) ;
```

The following example adds 2 + 2 and displays the result of 4 on the screen. We suggest putting a space before and after an operator.

```
TYPE (EXPR (2 + 2) )
```

## FCLOSEA

**Type:** FILE HANDLING  
**Syntax:** FCLOSEA("FILENAME")  
**Purpose:** Closes the file that was previously opened with the FOPENA command.  
**Example:** The command below closes the file TEST.COM.

```
FCLOSEA("test.com")
```



## FCLOSEI

**Type:** FILE HANDLING

**Syntax:** FCLOSEI("FILENAME")

**Purpose:** Closes the file that was previously opened with the command FOPENI.

**Example:** The command below closes the file TEST.COM.

```
FCLOSEI ("test.com")
```

## FCLOSEO

**Type:** FILE HANDLING  
**Syntax:** FCLOSEO("FILENAME")  
**Purpose:** Closes the file that was previously opened with the FOPENO command.  
**Example:** To close the file TEST.COM, use the command:  
  
`FCLOSEO("test.com")`

## FGETC

**Type:** FILE HANDLING

**Syntax:** @a = FGETC("filename")

**Purpose:** Reads the first character in the text file specified in the "filename" argument and saves it to a scratch variable. If FGETC is called again, the next character in the text file is read. After FGETC goes through all the letters in the file, it returns a -1.

**Example:** This file reads one character at a time from the file "WELCOME.TXT" and types it to the display.

```
FOPENI ("WELCOME.TXT", "T")
:LOOP
@A = FGETC ("WELCOME.TXT")
IF (@A = -1) GOTO :DONE
TYPE (@A)
GOTO :LOOP
:DONE
FCLOSEI ("WELCOME.TXT")
```

## FGETS

**Type:** FILE HANDLING

**Syntax:** @A = FGETS("filename")

**Purpose:** Reads a line of text (terminated by a carriage return or line feed) from the text file shown in "filename" and saves it to the specified scratch variable. If this function is called again, the next line of the file will be stored to the variable. If an end-of-file is encountered, this command will return a -1.

**Example:** This example tells BitCom how to read the file "WELCOME.TXT" and then send each line of the file to the host.

```
FOPENI("WELCOME.TXT","T")
    {Reads the line and sends it to the host}
    {Checks for EOF character}

:LOOP
@A = FGETS("WELCOME.TXT")
"@A" {Sends the contents of the variable to host}
IF (@A <> -1) GOTO :LOOP {If not EOF, continue}
{loop. If EOF, close the file}
FCLOSEI("WELCOME.TXT")
```

**Note:** This is another way to send a text file to the host computer. You can include other commands inside the loop to check for line numbers, wait for the host to respond, or send other messages.

## FINDFIRST

**Type:** FILE HANDLING

**Syntax:** @A = FINDFIRST("FILE SPEC")

**Purpose:** Finds the first occurrence of the file specified in "FILE SPEC." You can use DOS wildcard characters.

**Example:** In this example, the following line displays the first filename found with the extension .WKS.

```
@A = FINDFIRST("C:\LOTUS\DATA\*.WKS")  
TYPE("@A")
```

## FINDNEXT

**Type:** FILE HANDLING

**Syntax:** @A = FINDNEXT

**Purpose:** Finds the next entry that matches the name specified on the previous FINDFIRST or FINDNEXT function call. If BitCom does not find a file, it returns a -1.

**Example:** In this example, if a second file with the extension .DAT is not found, processing will go to the label :NOFILE. If a file is found, processing will go to the label :LOOP.

```
@A = FINDFIRST("C:\LOTUS\*.DAT")
:LOOP
@A = FINDNEXT
IF (@A = -1) GOTO :NOFILE
GOTO :LOOP
:NOFILE
```

## FOPENA

**Type:** FILE HANDLING

**Syntax:** FOPENA("filename","mode")

**Purpose:** Opens a file and appends information to it. If the file does not exist, BitCom will create it. If the file exists, BitCom will append the data to the end of the file. If the mode is set to "T," the file is treated as a text file. Only ASCII characters can be written to it. If the mode is set to "B," the file is treated as a binary file. Any characters, including control characters, can be written to it.

To close the file after opening it with this command, use the FCLOSEA command.

**Note:** You can open a maximum of five files at a time, regardless of which "open" command you use.

**Example:** Opens a text file called TEST.LOG, writes a string to it, and then closes the file.

```
FOPENA ("TEST.LOG", "T")  
FPUTS ("THIS IS NEW TEXT", "TEST.LOG")  
FCLOSEA ("TEST.LOG")
```

## FOPENI

**Type:** FILE HANDLING

**Syntax:** FOPENI("filename","mode")

**Purpose:** Similar to the FOPENO command, except it opens read-only files. These files can then be read using the FGETC and FGETS commands. The "filename" argument can be any valid DOS filename and path. The mode can be either "T" for a text file or "B" for a binary file. A text file can only contain ASCII characters. A binary file can contain any characters, such as formatting commands.

**Example:** The following reads the first line of the file "TEST.LOG" and closes the file.

```
FOPENI ("TEST.LOG", "T")
@a = FGETS ("TEST.LOG")
FCLOSEI ("TEST.LOG")
```



## FOPENO

**Type:** FILE HANDLING

**Syntax:** FOPENO("filename","mode")

**Purpose:** Opens a given file so it can be written to with the FPUTC and FPUTS commands. These commands can write either a character or a string to the file. The "filename" argument can be any valid DOS filename. The mode can be either "T" for a text file or "B" for a binary file. A text file can contain only ASCII characters. A binary file can contain any characters, such as formatting commands.

**Example:** The following example opens the file TEST.LOG, writes a string to it, and then closes the file.

```
FOPENO("TEST.LOG","T")
FPUTS("THE TIME IS @CTIME")
FCLOSEO("TEST.LOG")
```

## FPUTC

**Type:** FILE HANDLING

**Syntax:** FPUTC ("STRING","FILENAME")

**Purpose:** Writes a character from the argument "STRING" to the "FILENAME." This file must have been previously opened with the FOPENO command in text ("T") mode.

**Example:** This example writes all characters from the host to the file "AUG.LOG" until the character "E" is matched.

```
FOPENO ("AUG.LOG", "T")
: LOOP
@a=GETCH
FPUTC ("@a", "AUG.LOG")
IF (@a="E") GOTO :DONE
FCLOSEO ("AUG.LOG")
```

## FPUTS

**Type:** FILE HANDLING

**Syntax:** FPUTS ("STRING", "FILENAME")

**Purpose:** Writes a string of characters from the argument "STRING" to the "FILENAME." This file must have been previously opened with the FOPENO command in text ("T") mode.

**Example:** This example opens a text file, writes two strings to it, and then closes the file.

```
FOPENO ("XFER.LOG", "T")
FPUTS ("FILE TRANSFER DATA IS:", "XFER.LOG")
FPUTS ("@CDATE$0D$0A", "XFER.LOG")
FCLOSEO ("XFER.LOG")
```

## GETCH

**Type:** PORT I/O

**Syntax:** @a = GETCH

**Purpose:** Reads a character as BitCom receives it from your serial port. If a character is unavailable, it will return a -1. If BitCom does receive a character, it will return that character.

**Example:** The following two lines tell BitCom to wait until it receives a character from the host. If a character is not received, it will continue to wait.

```
:loop  
IF (getch = -1) GOTO :loop
```

## GETCHW

**Type:** PORT I/O

**Syntax:** @a = GETCHW

**Purpose:** Saves a character sent from the host computer. The GETCHW command will wait until BitCom receives a character. It will always save the character it receives.

**Example:** This example tells the host to hit any key and then waits until it does.

```
"Press any key to continue"  
GETCHW
```

## GETLINE

**Type:** PORT I/O  
**Syntax:** @a = GETLINE  
**Purpose:** Gets a line of text that ends with a carriage return or line feed from the host computer.  
**Example:** The following saves the received text to the scratch variable @a.

```
@a=GETLINE
```

## GETPASS

**Type:** PORT I/O

**Syntax:** @a = GETLINE

**Purpose:** Works the same as the GETLINE command, except BitCom will not display the line of characters it receives.

**Example:** The following saves the received text to the scratch variable @a.

```
"ENTER PASSWORD:"      {get password}  
@a=GETLINE
```

## GOTO

**Type:** BRANCHING

**Syntax:** GOTO :label

**Purpose:** Jumps to go to the given label and then continues processing. The label must be preceded by a colon (:).

**Example:** In this example, if the file "HELLO" exists, processing will begin at the label of :OK.

```
IF (EXIST("Hello")=1) GOTO :OK
:OK
```



## HANGUP

**Type:** CONNECTION

**Syntax:** HANGUP

**Purpose:** Sends the hang-up string specified in the Modem Setting dialog box.

**Example:** In this example, BitCom will hang up if too many incorrect passwords are entered.

```
"Too many attempts..."  
HANGUP  
EXIT
```

Use the EXIT command after HANGUP to stop the processing of a script file.

You can also assign the HANGUP function to a function key.

```
@CTL-H = 'HANGUP'
```

## IF

**Type:** CONDITIONAL

**Syntax:** IF (condition) Statement 1; ELSE Statement 2

**Purpose:** Executes Statement 1 if the condition is true. If false, BitCom will skip to the next statement. A condition may consist of comparison operators, along with the AND and OR operators. You can use parentheses to control the order of comparisons.

Valid comparison operators are:

=	Test for equality
<>	Test for inequality
>	Test for greater than
<	Test for less than
>=	Test for greater than or equal to
<=	Test for less than or equal to

**Example:** If the content of @a is a colon, BitCom will go to the label :gotcolon.

```
IF (@a=":")  
GOTO :gotcolon
```

In this example, if the character the GETCHW command receives is not a colon or a question mark, BitCom will return to :loop1.

```
@a=getchw  
IF ((@a<>":") and (@a<>"?")) GOTO :loop1
```

In this example, if @echo is equal to 0, the first statement will be typed. If @echo is equal to anything else, the second statement will be typed.

```
IF (@echo=0) TYPE("echo off")  
ELSE TYPE("echo on")
```

## INVOKE

**Type:** BRANCHING

**Syntax:** INVOKE filename [arg1...arg9];

**Purpose:** Begins the execution of a script file. This is similar to a subroutine call in BASIC or other programming languages.

**Example:** In this example, the last line of the file will invoke HANDYKEY.ACT, another script file in BitCom's directory.

```
INVOKE HANDYKEY
```

**Note:** If you want to stop a script file and return to the script file that invoked it, use the EXIT command.

## KEREND

**Type:** FILE TRANSFER

**Syntax:** KEREND("opt")

**Purpose:** Disconnects from a Kermit Server. If "opt" is set to "finish," BitCom will exit the server. If it is set to "logout," BitCom will exit the server and disconnect.

**Example:** The following example tells BitCom to exit the Kermit Server but to stay connected to the host.

```
KEREND("finish")
```

## KERGET

**Type:** FILE TRANSFER

**Syntax:** KERGET("filename"[,"recvfile name"])

**Purpose:** Tells the Kermit Server to ask the host to send the given file. The Kermit Server must be in server mode to issue this command. The received file will be given the "recvfile name."

**Example:** The following asks the server to send the file TEST.DOC, and save it to the file TEST1.DOC.

```
KERGET("test.doc","test1.doc")
```

## KERRECV

**Type:** FILE TRANSFER

**Syntax:** KERRECV

**Purpose:** Tells BitCom to receive one or more files using the Kermit protocol. If the transaction is successful, BitCom will return a 0. If it is unsuccessful, BitCom will return a -1.

**Example:** KERRECV

Filenames are created by the sending computer.

## KERSEND

**Type:** FILE TRANSFER

**Syntax:** KERSEND("filename")

**Purpose:** Sends one or more files to the host using the Kermit protocol. The host must be using the Kermit Server or be ready to receive a file with the Kermit protocol. This function will return a -1 if it is unsuccessful and a 0 if it is successful.

**Example:** The following sends the file TEST1.DOC using the Kermit protocol.

```
KERSEND("test1.doc")
```

## POSCUR

**Type:** DISPLAY I/O

**Syntax:** POSCUR(col,row)

**Purpose:** Moves the cursor to a specified column and row. The valid ranges are:

col = 1 - 80 (or 132)

row = 1 - 24 (or any number defined in the @MAXROW variable within a script file)

This function always returns a 0.

**Example:** This statement will set the cursor position at column 1 and row 1.

```
POSCUR (1, 1)
```



## PRINTER

**Type:** MISCELLANEOUS

**Syntax:** PRINTER(1)  
PRINTER(0)

**Purpose:** Turns Print Capture on and off. BitCom prints everything appearing on your screen. PRINTER(1) turns Print Capture on; PRINTER(0) turns Print Capture off.

**Note:** Make sure that your printer is connected and online when using this function.

**Example:** In this example, BitCom turns on Print Capture, prints all incoming data, and then turns off Print Capture. This example is from the file EASYLINK.ACT.

```
PRINTER(1)      {print function on}
"/READALL$0a"  {read message, print & capture}
               {data}
CWAIT("PTS")   {wait for Easylink ready again}
PRINTER(0)      {print function off}
```

## PROMPT

**Type:** DISPLAY I/O

**Syntax:** PROMPT(string)

**Purpose:** Displays the given string on the Terminal Screen and then records the response entered at the keyboard until [Enter] is pressed. In other words, this command asks for information and then stores the response. The string is sent only to your display and not to the host computer.

**Example:** In this example, the prompt is assigned to the scratch variable @b.

```
@b=PROMPT("Enter X for Xmodem, A for ASCII:")
```

The following example combines the SENDFILE function with the PROMPT function.

```
@alt='SENDERFILE("Prompt("Filename?") ","Xmodem")'
```

## RCVFILE

**Type:** FILE TRANSFER  
**Syntax:** RCVFILE("filename","mode","eof")  
**Purpose:** Tells BitCom to receive a file with either the Xmodem, Ymodem, Zmodem or ASCII protocol. The file is saved to the file specified in "filename." The "mode" can be either XMODEM, YMODEM, ZMODEM or ASCII. If you use ASCII mode, you can also specify the end-of-file character (eof). If this argument is omitted, Fz (Hex 1A) will be taken as the end-of-file character. When using the Kermit protocol, use the KERRECV function instead.

You can use the Ymodem or Zmodem protocol to receive more than one file at a time, as in this example:

```
RCVFILE ("report??.*", "ZMODEM")
```

**Example:** In this example, the scratch variable @a is assigned the value of the filename that is entered.

```
@A = PROMPT ("ENTER FILENAME")  
RCVFILE ("@a", "ASCII", "$07")
```

Note that the end-of-file mark has been changed to Hex 7.

## SBREAK

**Type:** PORT I/O FUNCTION

**Syntax:** SBREAK

**Purpose:** Sends a break signal to the host computer.

**Example:** In this example, the system will wait two seconds and then send a break signal to the host.

```
TWAIT (2, "SEC")  
SBREAK
```

## SCROLL

**Type:** EMULATION

**Syntax:** SCROLL(1)  
SCROLL(0)

**Purpose:** Turns scrolling on or off. This function is mainly used in the WYSE 50 and WYSE 60 emulation files. When scrolling is off, the cursor returns to the first line and column (the top of the screen) when it reaches line 24, column 80 (the bottom of the screen).

**Example:** This example turns off scrolling.

```
SCROLL (0)
```

This example turns on scrolling.

```
SCROLL (1)
```

## SELECT

**Type:** CONNECTION

**Syntax:** SELECT(Record ID)

**Purpose:** Opens the specified phone book record. The entry is then used by the DOCOMM command. The phone book record must have been previously defined, either through built-in variables or from the PhoneBook. The script file will be cancelled if the given entry is not found.

**Note:** You can select a different entry while online.

**Example:** This example makes a connection with the "EASYLINK" record.

```
SELECT (EASYLINK)  
DOCOMM
```

## **SELPBK**

**Type:** CONNECTION

**Syntax:** SELPBK(phone book name)

**Purpose:** Opens the specified phone book.

**Example:** This example opens the Default phone book and then opens the EasyLink phone book record.

```
SELPBK(Default)  
SELECT(EASYLINK)
```

## SENDFILE

**Type:** FILE TRANSFER

**Syntax:** SENDFILE("filename","mode")

**Purpose:** Sends a file using either the Xmodem, Ymodem, Zmodem or ASCII protocol. The name of the file is entered in the "filename" argument. The protocol is specified in "mode," which can be set to either XMODEM, YMODEM, ZMODEM or ASCII. To use the Kermit protocol, use the KERSEND command. This function will return a 0 if it was successful and a -1 if it was unsuccessful.

**Example:** This example sends the file "LETTER.DOC" using the XMODEM protocol.

```
SENDFILE ("LETTER.DOC", "XMODEM")
```



## STRFIND

**Type:** STRING MANIPULATION

**Syntax:** STRFIND("target string","source string")

**Purpose:** Searches the "source string" for the "target string." If a match is found, BitCom will return a 0. If not, BitCom will return a -1.

**Example:** The following example gets one line from the host and checks for the word "Format." If this test is true, BitCom will go to the label "BADNEWS."

```
@A = GETLINE  
IF(Strfind("Format",@A)=0) GOTO :BADNEWS
```

## STRLEN

**Type:** STRING HANDLING

**Syntax:** @a = STRLEN(@X)  
@a = STRLEN("STRING")

**Purpose:** Determines the number of characters in a given string. The argument can be either a scratch variable or a constant.

**Example:** In this example, @a contains one line of characters received from the host. @B contains the number of characters in @A. Then @B is checked to see whether its length is less than five. If the number is less than five, it will go to the label :OK.

```
@a = GETLINE
@b = STRLEN(@a)
IF(@B < 5) GOTO :OK
```

## SUBSTR

**Type:** STRING HANDLING

**Syntax:** SUBSTR(string,start,end)

**Purpose:** Searches a given part of a string. "String" can be a variable argument or a constant. "Start" is the starting character of that string, and "end" is the last character of the string.

**Example:** The following example will search the given string, starting at the first character (M ) and stopping at the sixth (E). If the "end" argument is omitted, BitCom will search the entire string, beginning with the "start" character.

```
@A=GETLINE
IF (substr(@A,1,6) <> "MAGGIE") GOTO :badpw
GOTO :ok
```

## TOUPPER

**Type:** STRING HANDLING

**Syntax:** @B = TOUPPER(@A)

**Purpose:** Converts all the letters in a given string to uppercase. For example, if you receive a string from the host and want to check it against a password, you can first convert it to all upper-case letters to make it easier to check. This way, the person on the other side can enter upper-case or lower-case letters.

**Example:** The example below gets a line of text from the host, converts it to upper-case letters, and then checks to see whether the string matches the password.

```
@a = GETLINE
@b = TOUPPER(@a)
IF (@a= "PASSWORD") GOTO :ok
```

## TRACE

**Type:** MISCELLANEOUS

**Syntax:** TRACE(1)  
TRACE(0)

**Purpose:** Enables or disables the tracing of the currently running script file. TRACE(1) turns tracing on and TRACE(0) turns it off. This function always returns a zero.

**Example:** The following will begin tracing.

```
TRACE (1)
```

## TWAIT

**Type:** EVENT WAIT

**Syntax:** TWAIT(time,"unit")

**Purpose:** Waits for a given length of time. Valid units of time are:

hsec    hundredths of a second

sec    seconds

min    minutes

hour    hours

This function always returns a 0. While you wait, any characters you receive from the host are sent to the Terminal Screen.

**Example:** The following command tells BitCom to wait for two seconds.

```
TWAIT (2, "sec")
```

## TYPE

**Type:** DISPLAY I/O

**Syntax:** TYPE(string)

**Purpose:** Displays the given string. No carriage return is added. This function will always return a 0.

**Example:** Following are some examples of the TYPE function:

```
TYPE("PLEASE TURN ON THE PRINTER");  
TYPE("The echo mode is @mode");  
TYPE("The current window size is @mrow line");  
IF (@echo=1) TYPE("ECHO IS ON")
```

**Note:** The string is shown only in the Terminal Screen and not sent to the host.

## TYPECR

**Type:** DISPLAY I/O

**Syntax:** TYPECR(string)

**Purpose:** Displays the given string and adds a carriage return. This function always returns a 0. This function works exactly like TYPE except the cursor moves to the next line.

**Example:** In this example, BitCom displays the given line of text.

```
TYPECR("LOGON OK");
```

**Note:** BitCom displays the string only on your screen and does not send it to the host.



## WAIT

**Type:** EVENT WAIT

**Syntax:** WAIT(hour,min)

**Purpose:** Waits the given time before executing the rest of the script file. The hour must be given in a 24-hour format. This function always returns a zero. While waiting, any characters you receive from the host are shown on the Terminal Screen.

**Example:** In the following, BitCom waits until 11:59 p.m. before it starts executing.

```
WAIT (23, 59)
```

## WHEN

**Type:** EVENT EXECUTION  
CWHEN

**Syntax:** WHEN("STRING",'COMMAND')  
CWHEN("STRING")

**Purpose:** The WHEN function waits for a specified string of text to appear and then executes a specified command. The CWHEN function disables this condition.

**Note:** The WHEN command is case-sensitive. You must enter the exact prompt the host will send. Also, you can set up to four different conditions with the WHEN command at any one time.

**Example:** In this example, when the string "IBM" is matched, BitCom starts the script file "DOIBM."

```
WHEN("IBM", 'INVOKE DOIBM')
```

To clear the above condition (no longer have your system wait for the "IBM" string), use the line:

```
CWHEN("IBM")
```

In this example, when BitCom receives the string "User ID", it will send the text "Maggie Leung" followed by a carriage return and line-feed character.

```
WHEN("User ID", '"Maggie Leung$0d$0a"')
```

Each specified string is matched with a specified command. For example:

```
WHEN("ABC", 'INVOKE DOABC')  
WHEN("EFG", 'INVOKE DOEFG')  
WHEN("HIJ", 'INVOKE DOHIJ')
```

This command can be used with any other command, except GOTO. If you need to control the processing of commands, invoke another script file instead.

## WWAIT

**Type:** EVENT WAIT

**Syntax:** WWAIT(number of seconds)

**Purpose:** Waits until BitCom does not receive any characters for the number of seconds shown in "time." This is useful to determine whether the host is prompting you for input.

**Example:** In the next example, BitCom waits for the string "name." If it is not received within two seconds, processing will continue. If the name string is received, it will go to the label :cont.

```
@a=WWAIT(2)
IF(@a="name?") GOTO :cont
```

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**Application** - A computer program, such as a word processor or BitWare. This term is often used interchangeably with "program."

**Anti-aliasing** - Anti-aliasing smoothes the appearance of graphic images by shading neighboring pixels gray. When View Fax displays a fax in anything other than "Detail" view, it shrinks the image, sometimes giving the fax a jagged, blotchy look. To make text easier to read and to give graphics a cleaner appearance, anti-aliasing smoothes jagged curves and lines.

**ASCII** - An acronym for American Standard Code for Information Interchange. ASCII files are plain, unformatted text files that are understood by virtually any computer. Windows Notepad and virtually any word processor can read and create ASCII files. ASCII files usually have the extension .TXT (e.g., README.TXT).



**AUTOEXEC.BAT** - A special batch file that the MS-DOS operating system automatically runs when you start or restart your computer. This file contains start-up commands that configure your system.

**Baud Rate** - The transmission speed of data through an asynchronous channel. Often confused with BPS (bits per second), baud rate actually refers to the number of signals per second. Because each signal can represent more than one bit of data, the number of bits per second is usually higher than the baud rate. For example, 2400 bps is typically sent at a rate of 600 baud.

**BBS** - An abbreviation for bulletin board service.

**Binary File** - A file that contains data or program instructions written in ASCII and extended ASCII characters.

There are basically two kinds of computer files, binary and ASCII (also called text-only) files. Computer programs, graphic files and word processor documents are all examples of binary files. These files contain special formatting and computer codes. ASCII files are plain text files that can be read by virtually any word processor.

**Bit** - Stands for binary digit (**B**inary **digi**T), the smallest unit of information your computer handles. In a binary numbering system, a bit represents either 1 or 0 (also called "on" or "off").

**BMP** - This is a Windows-based graphic file format used by Paintbrush and other popular paint programs. BMP graphics, like BCX, PCX, TIFF, are a collection of dots rather than shapes. These dots represent an image.

**BPS** - Stands for bits per second (**B**its **P**er **S**econd). This represents the number of data bits that a device such as your modem can transfer within a second. This term is often confused with [baud rate](#).

**Bytes** - A collection of eight bits that represent a character, letter or punctuation mark.



**CAS** - An acronym for Communications Applications Specifications. This is a communication standard developed jointly by DCA Inc. and Intel Inc.

**Click** - After positioning the pointer on a specific area, the action of quickly pressing and releasing the mouse button. Unless specifically instructed not to, use the left mouse button. Clicking on a menu, command button, toolbar or scroll bar usually results in an action.

**Clipboard** - The Windows Clipboard stores information you "cut" or "copied" from an application. This temporary storage bin lets you move text, graphics and other types of information from one application to another. The information in the Clipboard is static and will not reflect later changes. (See [Dynamic Data Exchange](#).)

**COM port** - Short for a serial communication port. Most fax modems communicate with a computer through a communication port, and most IBM and IBM-compatible computers support up to four serial ports COM1, COM2, COM3 and COM4.

**Cover page** - A one or two page document that describes the fax being sent, including the recipient and sender's name and other information. BitWare sends the cover page first. When broadcasting a fax with a cover page to more than one person, BitWare will automatically address each cover page for each recipient. BitWare also allows you to send just the cover page as a quick, one- or two-page fax.

**Cutout** - The area of the fax document you selected with the Pointer tool in View Fax. A thin line shows the cutout area. You can copy, cut and move a cutout.

**Data bits** - A group of bits (1's and 0's) that represent a single character or byte. Typically, there are seven or eight data bits. During an asynchronous communication (e.g., BitCom connecting to CompuServe™), each side must agree on the number of data bits. Data bits are preceded by a start bit and followed by an optional parity bit and one or more stop bits.

**dBASE** - A popular database management system.



**DDE** - An abbreviation of Dynamic Data Exchange. DDE lets two or more programs that support DDE exchange information and commands while they are running. For example, BitWare can establish a link with Microsoft's Word.

**Directory** - An index for filenames and other directories stored on a disk. You can think of a directory as a folder. Inside the folder, you can place files and other folders. For example, the BITWARE directory stores BitWare's files. The topmost directory is called the root directory.

**Download** - To receive one or more files from a remote computer system, such as another PC or an online service.

**Drag** - With a mouse, drag means to hold down a mouse button while moving the mouse, and then release the button at the end of the operation. For example, if you wanted to use the Rectangle tool in View Fax, you would hold down the left mouse button and move the mouse. When the rectangle was the size you wanted, you would then release the mouse button.

**Fax** - Short for facsimile, the transmission of one or more documents from one fax machine or fax modem to another via a telephone line. BitWare electronically generates documents with its Windows print driver. In the case of a fax machine, pages are physically scanned in, translated into a graphic image and then transmitted. BitWare can send and receive faxes at a resolution of about 100 by 200 dpi (normal or standard) and 200 by 200 dpi (fine).

**Fax document** - Fax documents can contain cover page information, one or more BFX fax files, a label and other reference information.

**Fax file** - Fax files have the extension \*.BFX. These files contain only the fax image information.

**Filename** - A name assigned to a file. A filename can be up to eight characters long and can include a three-character extension. The name and the extension are separated by a period. An extension often indicates something about the file. For example, `BIG_OAK1.PCX` could be the filename of a PCX graphic file of a large oak tree. As the example shows, filenames can also include certain punctuation marks, such as hyphens and underlines.



**Flow control** - A method of controlling the amount of data that two devices exchange. In data communications, flow control prevents one modem from "flooding" the other with data. If data comes in faster than it can be processed, the receiving side stores the data in a buffer. When the buffer is nearly full, the receiving side signals the sending side to stop until the buffer has space again. Between hardware (such as your modem and your computer), hardware flow control is used; between modems, software flow control is used.

**Font** - A complete collection of letters, numbers, punctuation marks and special characters with the same typeface, style, stroke weight and size, such as **11-point, bold Times New Roman**. This term is often confused with typeface, which refers to a specific character design, such as Arial. BitWare supports all Windows fonts.

**Initialization string** - A command or a group of commands that BitWare or BitCom sends to your modem. These commands tell your modem to use a certain setup.

**Invert** - In View Fax, the reversal of the white and dark pixels. For example, if your screen is displaying black text on a white background, inverting the image would display white letters on a black background. Invert is also called reverse video.

**I/O address** - An abbreviation for input/output address. Your fax modem uses an I/O address, which is a reserved space in your computer's input/output address space.

**Jumper** - A small plug or switch that lets you customize a circuit board. For example, most internal modems let you change their COM port by changing a jumper switch.

**Modem** - An abbreviation for MOdulator/DEModulator, a device that lets computers exchange information over a standard telephone line. Computers process information in 1's and 0's called bits. A modem takes these bits from a computer and modulates them into high and low signals that a telephone line can carry. The receiving modem then demodulates them back into 1's and 0's, which the receiving computer can understand.

**OCR** - An abbreviation of Optical Character Recognition, a process of recognizing the graphical representations of text and translating it into a format that a word processor can read. AnyFax™ OCR converts fax documents into formatted text.



**Online** - In data communications, a successful connection with a remote computer.

**Padding** - Some fax machines and modems expect a certain amount of data for each fax scan line. If a scan line has little or no data, Transmit Fax can, if required, automatically insert "filler" or padding characters (0's) so each scan line is a predefined length. Generally, the newer fax machines and modems do not require padding.

**Parity** - In data communications, parity is a simple procedure of checking the integrity of transmitted data. The most common type of parity is Even, in which the number of 1's in a byte of data add up to an even number, and None, in which a parity bit is not added.

**PCX** - A popular bitmap graphic format. PCX is a single page format, so you can convert only one fax page at a time. The DCX format, a multi-page version of PCX, was created to overcome this limitation.

**Print driver** - A print driver is a program that acts as a translator between your application and your printer. Each printer has its own internal "language" with its own codes and commands. Applications use print drivers to communicate with a variety of printers. In the Windows environment, print drivers are shared, eliminating the need for each application to have its own.

**Protocol** - A set of rules and conventions to ensure that two modems exchange data without errors. Both sides must use the same protocol.

**RAM** - An acronym for Random Access Memory. RAM is your computer's primary memory, where program instructions and data are stored. Some programs, such as AnyFax OCR, require a certain amount of RAM to run.

**Resolution** - A measurement of the sharpness or clarity of an image. For faxes, resolution is expressed as the number of dots per inch (dpi) displayed horizontally and vertically. BitWare can send and receive faxes at normal or standard resolution (100 by 200 dpi) and fine resolution (200 by 200 dpi). AnyFax™ OCR works best with fine resolution faxes.



**Script file** - A text file containing a set of commands that instruct BitCom to perform one or more tasks. For example, a script file can automatically log you onto a system.

**Scroll buffer** - A place where BitCom temporarily stores the text that appears in its terminal screen. As text scrolls off the screen, BitCom saves it in its buffer. When you want to see text that scrolled by, you can use your arrow keys or click on the scroll bars to scroll backward. The scroll buffer is circular. When the scroll buffer is full, BitCom disregards the old text to make room for the new. BitCom's scroll buffer can hold 160 lines of text.

**Start bit** - The starting bit of a byte (or character). In data communications, every byte has a starting bit.

**Status bar** - A line of information, usually at the bottom of a window or dialog box. In the View Fax window, the status bar displays the resolution and the number of pages of the opened fax.

**Swap file** - A hidden file of your hard disk or network disk that Windows uses for swapping information from your disk into memory.

**Stop bits** - In data communication, one or two bits used to mark the end of a byte (or character). At least one stop bit is always sent.

**Terminal emulation** - A technique of making BitCom act as if it were a particular type of terminal, such as ANSI or VT100.

**Thumbnail** - A miniaturized representation of an image. For example, the Receive Log displays a thumbnail view of the currently selected fax.



**Toolbar** - A strip of command buttons, displayed just below the menu bar, to give you quick access to commonly used commands and utilities.

**TrueType fonts** - Fonts that can be scaled to any height and print exactly as they appear on screen.

**Twain** - Twain is a special image-acquisition interface that enables a host application, such as BitWare, to work with a scanner's software. BitWare works with any Twain-compatible scanner, such as Hewlett Packard's DeskScan II™ and Logitech's ScanMan.™

**UART** - The acronym for Universal Asynchronous Receiver/Transmitter. A UART is a chip that processes the data that goes through your modem. If you are using fax/voice modem, you should use a 16550 or 16550A UART to help ensure clear voice messages.

**Upload** - To send one or more files from your computer's disk storage to a remote computer, such as another PC or an online service.

**Virtual memory** - A portion of your hard disk that Windows uses as if it were actual memory.

**Wave file** - A sound file used by Windows. Wave files have the extension .WAV. Your system needs a sound card or a special PC speaker driver to play wave files.

**WYSIWYG** - An abbreviation of "What You See Is What You Get." With BitWare, what you see on your screen, including all Windows fonts and graphics, is what you fax.



**Check Parity.** Parity error-correction is used to ensure correct data transmission over the telephone line. If parity checking is required, make sure field is selected. *The default is no parity checking.*

**Welcome Message.** When a user logs into a BitCom host, a welcome message is displayed on the remote user's terminal. In this field, you can modify the welcome message to meet your needs. The default message is *"Welcome to BITCOM HOST."*

**Enable Password Protection.** If you require a remote user to enter a password before logging into a BitCom host, make sure that this option is selected. Otherwise, any remote user can log into the host.

## The BitCom Window

BitCom lets you send and receive files, exchange electronic mail, and log on to online services.

This full-featured communication program features terminal emulation, a flexible script language for automating common tasks, and popular file-transfer protocols.

---

### Dialog Box Options

There are a few major areas in this window.

On the top there is a Command Icon Bar. To the right are two status windows. In the center is the main Terminal Data Window. Below it are the Function Keys. At the bottom are Information Bars, and a Modem Status Light bar at the bottom right.

### The Command Icon Bar

Please click on each of the following for an explanation of the functions.

[PhoneBookDial/Redial](#)

[Send](#)

[Receive](#)

[Host](#)

[View](#)

[Search](#)

[QKeys](#)

### The Status Bars

To the right there are two status bars. The upper status bar displays the duration of the current connection. The lower bar displays the current time.

### The Terminal Data Window

This is the main display window for data sent/received from the remote connection. To verify that your modem is working, you should be able to type AT[Enter] and get back an OK.

### The Function Keys

These function keys provide a quick way to perform tasks that you do frequently. These keys are associated with a script file which you can modify to suit your need. You can use the Settings menu's Quick Dial Keys... command to define your function keys. You normally should first create a command script file to be assigned to a key. For details please read the [Creating Function Keys](#) section of the HELP system.

### The Information Bars

This section displays a few general system information status. From left to right, the first one shows if BitCom is attached or Detached from the COM Port.

#### Note:

"Attached" here means the COM Port is in use by BitCom. No other Windows application can use this COM Port. Use the "Detach" command in the Action menu to free the COM port if you want to temporarily let other application make use of the port. When BitCom closes, the attached COM port is automatically detached.

The second bar shows what Terminal Emulation is being used. You can click on this bar and hold on to the mouse button to select a different emulation protocol.

The third bar shows which COM port is being used.

The fourth bar shows the speed and parity settings. Again, you can click on this bar and hold on to the mouse button to select a different setting.

The next bar shows the status of file capturing. See [Capturing Data to a File](#) for details.

The next bar shows the status of Printing. See [Capturing Data to Your Printer](#) for details.

Finally, at the very right, there is a set of six modem status light which simulates the lights of a real external modem.

**Note:**

These lights reflect the status from the UART of the COM Port. Even if you do not have a real modem attached to the COM Port, the SD, RD and other lights may still react to your key strokes. This is normal.

---

**See Also**

[Making a Connection](#)

[Transferring Files with a PC](#)

[Transferring Files with an Online Service](#)

[Creating Function Keys](#)

[Adding a Phone Book Record](#)

[Editing a Phone Book Record](#)

## Dial/Redial Command

This button has the same effect as the [Dial/Redial](#) command in the Action menu. Once connected, this button will be changed to HangUp, which you can press to disconnect from the remote system. Pressing HangUp has the same effect as the [HangUp](#) command in the Action menu.

## Phone Book Command

This button has the same effect as the [Select Record](#) command in the Phone Book menu.

## Send File Command

This button has the same effect as the [Send File](#) command in the Action menu.  
Use this command to send (or "upload") one or more files.



## Receive File Command

This button has the same effect as the [Receive File](#) command in the Action menu. Use this command to receive (or "download") one or more files.

## Host Command

Use this command to set BitCom in its Host mode.

## **View Captured File Command**

Use this command to view the screen text that BitCom has captured to a file. This brings up the [View File](#) dialog box.

## Search Command

Use this command to find a word or phrase in the terminal screen. BitCom will search the scroll buffer for the word or phrase you specify.

---

[See Also](#)

[Searching for Text](#)

## Edit Command

Use this command to edit the communication parameters of the currently opened phone book record. This button opens the [Edit Parameters](#) dialog box. From here, you can change the port settings, terminal emulation, file-transfer protocol and more.

## Quick Dial Keys Command

Use this command button to edit the Quick Dial keys. For more information, see [Using the Quick Dial Keys](#).

## **Online Help Command**

Use this command to access BitCom's online help. BitCom also features context-sensitive help. To see description of a selected command or opened dialog box, press [F1].

**Status bar**

Displays the name of the currently open phone book.



**Status bar**

Displays the name of the currently open phone book record.

## **Status bar**

Displays the current time.

## **Status bar**

Displays your connection status.

## **Status bar**

Displays and allows you to change the current terminal emulation settings.

## Status bar

Displays and allows you to change the [COM Port](#) BitCom is using.

## Status bar

Displays the current communication settings, such as the [baud rate](#) and the [parity](#) settings.

## **Status bar**

Allows you to turn file capture on and off.

## **Status bar**

Allows you to turn print capture on and off.



## **Status bar**

Displays the duration of the connection.

## Quick Dial keys

The Quick Dial keys let you automatically dial and logon to your favorite online services with just a click of your mouse. For more information, see [Using the Quick Dial Keys](#).

## **Terminal screen**

This is where the characters you send and receive appear. When text scrolls off the screen, scroll bars will appear, allowing you to review any data you missed.

## **Notepad Command (File Menu)**

Use this command to open Windows Notepad.

## **Clipboard Command (File Menu)**

Use this command to see the contents of Windows Clipboard. This command opens Windows Clipboard Viewer.

## View File Command

Use this command to view the text you captured using File Capture.

---

### Dialog Box Options

#### Filename

In the text box, specify the captured file you want to view.

#### Directory

Displays the currently open directory. BitCom initially opens its \CAP directory.

#### Files

Lists the files in the currently opened directory. By default, BitCom lists files with the .CAP extension.

#### Directories

In this list box, you can choose a different drive and directory. BitCom initially opens its \CAP directory.

#### View Captured File

Use this command to select BitCom's default capture file, UNTITLED.CAP.

---

#### See Also

[Viewing Captured Files](#)

## **Print File Command (File Menu)**

Use this command to print the text you captured using File Capture.

---

### **Dialog Box Options**

#### **Filename**

In the text box, specify the captured file you want to print.

#### **Directory**

Displays the currently open directory. BitCom initially opens its \CAP directory.

#### **Files**

Lists the files in the currently opened directory. By default, BitCom lists files with the .CAP extension.

#### **Directories**

In this list box, you can choose a different drive and directory. BitCom initially opens its \CAP directory.

#### **View Captured File**

Use this command to select BitCom's default capture file, UNTITLED.CAP.

---

#### **See Also**

[Printing Captured Files](#)

## Page Setup Command (File Menu)

Use this command to change margins, the header and footer, and the font of the captured files BitCom prints.

---

### Dialog Box Options

#### Header

In this text-entry box, you can enter a brief description that will appear on the top of each page BitCom prints.

#### Footer

In this text-entry box, you can enter a brief description that will appear on the bottom of each page BitCom prints.

#### Date

Select this option if you want BitCom to include the date at the top of each page. The date appears just to the right of the header.

#### Time

Select this option if you want BitCom to include the time at the top of each page. The time appears just to the right of the header.

#### Page number

Select this option if you want BitCom to include the page number at the top of each page. The page number appears just to the right of the header.

#### Margins

In these text-entry boxes, you can change the page's margins.

**Left** - Specifies the distance between the left edge of the page and the left end of each line with no left indent.

**Right** - Specifies the distance between the right edge of the page and the right end of each line with no right indent.

**Top** - Specifies the distance between the top of the page and the top of the first line on the page.

**Bottom** - Specifies the distance between the bottom of the page and the bottom of the last line on the page.

#### Font

Displays the currently selected font and point size.

**Font name** - In this pull-down list box, you can select the font you want BitCom to use.

**Point size** - In this text box, you can specify the point size of the selected font.

**Sample text** - Displays a preview of the selected font and point size.

---

#### See Also

[Printing Captured Files](#)



## Printer Setup Command (File Menu)

Use this command to specify how your printer prints documents from BitCom.

---

### Dialog Box Options

#### Printer

Selects the print driver you want BitCom to use.

**Default Printer** - When selected, BitCom will use Windows' current default print driver.

**Specific Printer** - When selected, BitCom will use the specified print driver, even if you later change your current Windows print driver or default print driver. Only installed printers appear in the list. You can install additional printers through the Windows Control Panel.

#### Orientation

Selects the page orientation (Portrait or Landscape). Make sure the orientation matches that of the document you are faxing.

**Portrait** - Select this option when the document's pages are taller than they are wide when viewed from an upright position.

**Landscape** - Select this option when the document's pages are wider than they are tall when viewed from an upright position.

#### Paper

Allows you to select the size and source of the paper that your selected printer will use.

**Size** - In the United States, the standard paper size is Letter (8 1/2 by 11 inches). In most European countries, the standard paper size is A4 (210 by 297 mm).

**Source** - Select the source of your printer's paper. This option will vary depending on the chosen printer.

#### Options...

Opens the Options dialog box of the currently selected print driver. For more information, choose the Help button after you choose the Options button.

---

#### See Also

[Printing Captured Files](#)

## **Exit Command (File Menu)**

Use this command to close BitCom. You can also use the "Close" command on the Control menu. BitCom will prompt you to save any unsaved changes you made to the phone book.

## Copy Command (Edit Menu)

Use this command to copy the selected text in the Terminal Screen to the Windows [clipboard](#). Copying text to the clipboard replaces its previous contents.

---

[See Also](#)

[Using the Windows Clipboard](#)

## Paste to Host Command (Edit Menu)

Use this command to send the contents of the Windows [clipboard](#) to the host computer.

This command is useful for moving text from another Windows application into BitCom. For example, you can copy a portion of a report you are writing in Microsoft's Word for Windows and paste it into the Terminal Screen, where (if connected) BitCom will send it to the host.

---

See Also

[Using the Windows Clipboard](#)

## Paste to Capture File Command (Edit Menu)

Use this command to send the contents of the Windows [clipboard](#) to the capture file. This command is available only when you are actively capturing data to a file.

---

[See Also](#)

[Using the Windows Clipboard](#)

## Copy Selection to Capture File Command (Edit Menu)

Use this command to send the currently selected text in the Terminal Screen to the capture file. This command is available only when you are actively capturing data to a file.

---

[See Also](#)

[Using the Windows Clipboard](#)

## Screen to Capture File Command (Edit Menu)

Use this command to copy the currently displayed text in the Terminal Screen to the capture file. This command is available only when you are actively capturing data to a file.

---

See Also

[Capturing Data to a File](#)

## **Search Command (Edit Menu)**

Use this command to search the scroll buffer for a word or a phrase. BitCom will start at the top of the scroll buffer and search downward until it finds the first occurrence of the word or phrase you specified.

Select the "Ignore case" option if you want BitCom to find all occurrences of the text you entered in the "Search for" box, disregarding upper-case and lower-case.



## **Clear Buffer Command (Edit Menu)**

Use this command to clear the contents of BitCom's [scroll buffer](#).

## Select Phone Book Command (Phone Book Menu)

Use this command to choose a phone book. You can also use this command to add, delete or copy a phone book, as well as change the link of an existing phone book.

---

### Dialog Box Options

#### Current

Displays the name of the currently opened phone book.

#### Selected

Displays the name of the currently selected phone book.

#### Phone books

Lists all available phone books. You can select a phone book from this list.

#### Add...

Use this command to add a new phone book. This command opens the [Add Phone Book](#) dialog box.

#### Link...

Use this command to reassign a phone book to a different file. This command opens the [Phone Book Link](#) dialog box.

#### Remove

Use this command to delete a phone book from the "Phone books" list. You cannot delete the currently opened phone book.

#### Copy...

Use this command to copy a phone book. This command opens the [Copy Phone Book](#) dialog box.

---

#### See Also

[Using the Phone Book](#)

## Add Phone Book Dialog

Use this command to add an existing BitCom or BitWare phone book list, or to create a new one.

---

### Dialog Box Options

#### Phone book

In this text-entry box, you can enter a name for the phone book.

#### Filename

In this text-entry box, you can specify the name of the phone book file.

#### Directory

Displays the currently opened drive and directory.

#### Files

List all the dBASE files in the currently opened directory. By default, BitCom lists all files with the .DBF extension.

#### Directories

From this list box, you can change the currently opened drive and directory.

---

#### See Also

[Adding a Phone Book Record](#)

## Phone Book Link Dialog

Use this command to reassign a phone book list to a different file. For example, if a phone book has been moved to a different location (i.e., from your hard drive to a network drive), you can use this command to tell BitCom where the phone book is now located.

---

### Dialog Box Options

#### Phone book

This text-entry box shows the name of the selected phone book. If you enter a new name in this text box, BitCom will create a new phone book.

#### Filename

In this text-entry box, you can specify the name of the phone book file to which you want to link the phone book.

#### Directory

Displays the currently opened drive and directory.

#### Files

List all the dBASE files in the currently opened directory. By default, BitCom lists all files with the .DBF extension.

#### Directories

From this list box, you can change the currently opened drive and directory.

---

#### See Also

[Creating New Phone Books](#)

## Copy Phone Book Dialog

Use this command to copy a phone book. For example, you can use this command to make a backup copy of your phone book or to move your phone book to a different location (i.e., from your hard disk to a network drive).

---

### Dialog Box Options

#### FROM

**Phone book** - Displays the name of the phone book.

**Filename** - Displays the name of the phone book file and the drive and directory at which it is located.

#### TO

**Phone book** - Enter a phone book name.

**Filename** - Enter or select a [filename](#) for the phone book. The name should end with the .DBF extension.

#### Files

Lists all the dBASE files in the currently opened directory. By default, BitCom lists all files with the .DBF extension.

#### Directories

From this list box, you can change the currently opened drive and directory.

---

#### See Also

[Copying a Phone Book](#)

## Assign Fields Command (Phone Book Menu)

Use this command when importing a phone book that uses different dBASE fields than BitCom's phone book. For example, if you are importing a phone book list that stores its data communication numbers in a field called DATANUMS, you would assign that field to BitCom's first number field, PB\_PHNUM1. BitCom would then read that foreign fax number field as if it were its own.

---

### Dialog Box Options

#### Phone book fields

Displays the dBASE fields that BitWare's phone book uses. Field names with an asterisk to the left of them must be assigned to a foreign database field.

**Note:** See [dBASE Structure of the Phone Book](#) for a description of each database field.

#### Foreign database fields

Displays the dBASE fields that the imported phone book uses.

#### << Assign

Assigns the selected foreign database field to BitWare's selected phone book field. The name of the foreign field will appear to the right of the equal sign (e.g., \*PB\_PHNUM1=FAXNUMS).

#### Remove >>

Unassigns the selected foreign database field from BitWare's selected phone book field.

---

#### See Also

[Creating New Phone Books](#)

## Add Record Command (Phone Book Menu)

Use this command to add a new phone book record.

---

### Dialog Box Options

#### Record ID

In this group, enter a unique name. You can enter only eight characters.

#### Last name

You can enter the last name of the recipient. (If you are calling an online service or BBS, then you will probably not need to enter a name.)

#### First

You can enter the first name of the recipient. (If you are calling an online service or BBS, then you will probably not need to enter a name.)

#### Company

You can enter a company name.

#### Comments

You can enter a short description of the online service, BBS or company you will be connecting to.

#### Phones

In this group, you can enter one or more data numbers. If the person, service or company you are making a connection with also has a fax and voice number, you can enter them here as well. You can enter up to 12 numbers.

**Number** - In this text-entry box, enter the number of the remote computer. Using the "Add" command, you can also enter a voice and fax number. If you enter a fax or voice number, specify them as such in the "Type" pull-down list; otherwise BitCom will save them as data numbers.

**Note:** If you need to dial a special number to get an outside line, such as "9," you can add it to the end of the "Dial prefix" box in the [Modem Settings](#) dialog box. BitCom will automatically dial the number before it dials the data number.

**Location** - BitCom lets you further organize your phone numbers by location. You can enter a location (up to eight characters) or choose work or home. For example, one phone number could be your voice home number and another the data number of your home computer.

**Type** - In this list box, you can specify how BitCom will dial the specified number you entered in the "Number" text box. Each number can be one of three basic types – data, fax or voice. The data numbers are the numbers BitCom dials when making a connection with another system. In most cases, you can use the "Default data" type, even if you are using a high-speed modem with MNP 5 or V.42bis.

You can also specify numbers as "Fax" or "Voice" numbers. After BitCom dials a voice number, it will prompt you to pick up your phone. You can then talk as you normally would. To hang up, choose "Hang Up" from the Action menu and hang up the phone. Fax numbers can be used by BitWare.

If you select a type other than "Default data" or "Fax" or "Voice," BitCom will initialize the modem with the corresponding string in the [Connection Type](#) dialog box.

**Note:** In most cases, you can classify a number as one of the following – "Default data," "Voice" or "Fax."

- **Default data** - Select this option for data connections, unless you want to make a specific kind of data connection or your modem requires a special initialization string. BitCom will use your modem's default mode.
- **Standard async** - Select this option only if you want to force your modem into a standard mode without error correction or data compression.
- **V.42bis Auto-reliable** - Select this option only if you want to force your modem into V.42bis auto-

reliable mode. You can select this option only if your modem supports this protocol.

**Note:** If your modem offers V.42bis error correction and data correction, its default state most likely will already be set to V.42bis auto-reliable mode, in which case you can select the "Default data" option.

- **V.42 Auto-reliable** - Select this option only if you want to force your modem into V.42 auto-reliable mode. You can select this option only if your modem supports this protocol.
- **V.42bis Reliable** - Select this option only if you want to force your modem into V.42bis Reliable mode. You can select this option only if your modem supports this protocol.
- **V.42 Reliable** - Select this option only if you want to force your modem into V.42 Reliable mode. You can select this option only if your modem supports this protocol.
- **MNP 5** - Select this option only if you want to force your modem into MNP-5 mode. You can select this options only if your modem supports this protocol.
- **MNP 4** - Select this option only if you want to force your modem into MNP-4 mode. You can select this option only if your modem supports this protocol.

**Note:** In most cases, MNP 5 and MNP 4 are already built into the V.42bis protocol.

- **User 1** - Select this option if you want BitCom to initialize your modem with the "User 1" initialization string that was specified in the [Connection Type](#) dialog box.
- **User 2** - Select this option if you want BitCom to initialize your modem with the "User 2" initialization string that was specified in the [Connection Type](#) dialog box.
- **User 3** - Select this option if you want BitCom to initialize your modem with the "User 3" initialization string that was specified in the [Connection Type](#) dialog box.
- **Fax** - Select this option if the number is a fax number.
- **Voice** - Select this option if the number is a voice number.

**Note:** In the [Connection Type](#) dialog box, you can edit and add new modem initialization strings.

## Communications

The most important parameters are the ones in the "Communications" group. These must match the host system for BitCom to make a successful connection.

**Note:** Most BBSs (Bulletin Board Services) and PCs use N-8-1, which stands for no parity, eight data bits and one stop bit. Online services typically use E-7-1, which stands for even parity, seven data bits and one stop bit.

**Baud rate** - The baud rate is the speed at which your modem and the host system exchange data. It should be set to the highest speed that your modem and the host support.

If you are using Windows 3.0, the highest speed you can set the baud rate to is 19,200. If you are running Windows 3.1 on a fast computer, you can set the baud rate up to 38,400.

**Parity** - Parity is a simple way to check the integrity of the data you receive. Most online services use no parity or even parity.

**Note:** When you set parity to "None," you must set "Data bits" to 8 bits. Likewise, when you set parity to "Even" (or anything other than "None"), you must set "Data bits" to 7 bits.

**Flow control** - Also called handshaking, flow control regulates the flow of data between your modem and the remote modem, and between your modem and your computer.

- **Xon/Xoff** - This is software flow control that uses control codes to pause and restart the flow of data.
- **Hardware** - This is flow control that uses the RTS and CTS lines of the modem to regulate the flow of data.
- **None** - When selected, BitCom will not use any flow control.

**Note:** In most cases, you should use "Hardware" flow control. When using a high-speed modem that uses a built-in error-correcting protocol (such as MNP-5, V.42 or V.42bis), you must select the "Hardware" flow control.

**Data bits** - These are the bits of data that make up each character of information your modem sends and



receives. The data bits do not include the stop bit or the parity bit. You can set the number of data bits to 7 or 8. Most BBSs and PCs use eight data bits, and most online services use seven.

**Note:** When you set parity to "None," you must set "Data Bits" to 8; if you set it to anything else, you must set "Data bits" to 7.

**Stop bits** - A stop bit marks the end of a character. You can set stop bits to 1 or 2, depending on what is required by the host.

**Check parity** - When selected, BitCom will show an error message when it receives a character that does not pass the parity check. A character may not pass a parity check because of noise over the phone lines or transmission errors.

## Default connect

These options are used only by script files. They tell BitCom's script file what to do with the record once it is opened. The "Direct" option tells the script file to make a connection with the modem and not to dial a phone number. The "Call" option tells the script file to dial the first data number in the phone book record and make a connection. The "Answer" option tells BitCom to go into answer mode.

## Terminal...

Use this command to change the kind of terminal BitCom is emulating, turn the "Local echo" and "Auto linefeed" options on or off, change the length of the break signal, and select the "Convert to upper-case" option.

This command button opens the [Terminal Settings](#) dialog box.

## File Transfers...

Use this command to select the default protocol BitCom will use when transferring files with the remote system. This command opens the Select Protocol dialog box.

BitCom supports the ASCII, Xmodem, Ymodem, Ymodem-G, Zmodem and Kermit protocols.

## Function Keys...

Use this command to create or edit the record's on-screen function keys. This command opens the [Function Keys](#) dialog box.

Function Keys let you automate almost any routine communication task. With a click of your mouse, you can log on, open your E-mail, join an electronic conference, etc.

## Startup...

Use this command to specify the script file BitCom will run after it dials and makes a connection with the remote computer. In most cases, you will enter the name of a log-on script file. This command opens the [Startup](#) dialog box.

---

## See Also

[Adding a Phone Book Record](#)

## Select Record Command (Phone Book Menu or Button)

Use this command to select a phone book record. You may dial the record directly from here.

---

### Dialog Box Options

#### Current record

Displays the selected record's ID. Each record must have a unique ID.

#### Name

Displays the contents of the record's "First name" and "Last" text boxes.

#### Company

Displays the company name of the record.

#### Phone

Displays the record's data telephone number.

#### Communication parameters

Shows in the following order the record's baud rate, parity setting, data bits and stop bits. For example, 14400/N/8/1 indicates that the baud rate is set to 14400, parity to None, data bits to seven, and stop bits to one.

#### Comments

Shows the contents of the record's comment text box.

#### Add...

Use this command to add a new phone book record. This command opens the Add Record dialog box.

#### Edit...

Use this command to edit the currently selected record. This command opens the Edit Record dialog box.

#### Search...

Use this command to find a phone book record. In the text-entry box, enter a word or part of a word and click on "OK." BitCom will select the closest match.

#### Delete

Use this command to delete a phone book record.

#### Sort...

Use this command to sort the phone book according to the Record ID, Name or Company field.

#### Dial

Use this command to call the selected computer system. BitCom will begin dialing.

---

#### See Also

- [Adding a Phone Book Record](#)
- [Editing a Phone Book Record](#)
- [Deleting a Phone Book Record](#)
- [Creating New Phone Books](#)
- [Removing a Phone Book](#)
- [Copying a Phone Book](#)

## Add Record Dialog

Use this command to add a phone book record.

---

### Dialog Box Options

#### Record ID

In this group, enter a unique name. You can enter only eight characters.

#### Last name

You can enter the last name of the recipient. (If you are calling an online service or BBS, then you will probably not need to enter a name.)

#### First

You can enter the first name of the recipient. (If you are calling an online service or BBS, then you will probably not need to enter a name.)

#### Company

You can enter a company name.

#### Comments

You can enter a short description of the online service, BBS or company you will be connecting to.

#### Phones

In this group, you can enter one or more data numbers. If the person, service or company you are making a connection with also has a fax and voice number, you can enter them here as well. You can enter up to 12 numbers.

**Number** - In this text-entry box, enter the number of the remote computer. Using the "Add" command, you can also enter a voice and fax number. If you enter a fax or voice number, specify them as such in the "Type" pull-down list; otherwise BitCom will save them as data numbers.

**Note:** If you need to dial a special number to get an outside line, such as "9," you can add it to the end of the "Dial prefix" box in the [Modem Settings](#) dialog box. BitCom will automatically dial the number before it dials the data number.

**Location** - BitCom lets you further organize your phone numbers by location. You can enter a location (up to eight characters) or choose work or home. For example, one phone number could be your voice home number and another the data number of your home computer.

**Type** - In this list box, you can specify how BitCom will dial the specified number you entered in the "Number" text box. Each number can be one of three basic types – data, fax or voice. The data numbers are the numbers BitCom dials when making a connection with another system. In most cases, you can use the "Default data" type, even if you are using a high-speed modem with MNP 5 or V.42bis.

You can also specify numbers as "Fax" or "Voice" numbers. After BitCom dials a voice number, it will prompt you to pick up your phone. You can then talk as you normally would. To hang up, choose "Hang Up" from the Action menu and hang up the phone. Fax numbers can be used by BitWare.

If you select a type other than "Default data" or "Fax" or "Voice," BitCom will initialize the modem with the corresponding string in the [Connection Type](#) dialog box.

**Note:** In most cases, you can classify a number as one of the following – "Default data," "Voice" or "Fax."

- **Default data** - Select this option for data connections, unless you want to make a specific kind of data connection or your modem requires a special initialization string. BitCom will use your modem's default mode.
- **Standard async** - Select this option only if you want to force your modem into a standard mode without error correction or data compression.
- **V.42bis Auto-reliable** - Select this option only if you want to force your modem into V.42bis auto-

reliable mode. You can select this option only if your modem supports this protocol.

**Note:** If your modem offers V.42bis error correction and data correction, its default state most likely will already be set to V.42bis auto-reliable mode, in which case you can select the "Default data" option.

- **V.42 Auto-reliable** - Select this option only if you want to force your modem into V.42 auto-reliable mode. You can select this option only if your modem supports this protocol.
- **V.42bis Reliable** - Select this option only if you want to force your modem into V.42bis Reliable mode. You can select this option only if your modem supports this protocol.
- **V.42 Reliable** - Select this option only if you want to force your modem into V.42 Reliable mode. You can select this option only if your modem supports this protocol.
- **MNP 5** - Select this option only if you want to force your modem into MNP-5 mode. You can select this options only if your modem supports this protocol.
- **MNP 4** - Select this option only if you want to force your modem into MNP-4 mode. You can select this option only if your modem supports this protocol.

**Note:** In most cases, MNP 5 and MNP 4 are already built into the V.42bis protocol.

- **User 1** - Select this option if you want BitCom to initialize your modem with the "User 1" initialization string that was specified in the [Connection Type](#) dialog box.
- **User 2** - Select this option if you want BitCom to initialize your modem with the "User 2" initialization string that was specified in the [Connection Type](#) dialog box.
- **User 3** - Select this option if you want BitCom to initialize your modem with the "User 3" initialization string that was specified in the [Connection Type](#) dialog box.
- **Fax** - Select this option if the number is a fax number.
- **Voice** - Select this option if the number is a voice number.

**Note:** In the [Connection Type](#) dialog box, you can edit and add new modem initialization strings. If you use Rockwell RPI driver, please see [Using Rockwell RPI Driver](#)

## Communications

The most important parameters are the ones in the "Communications" group. These must match the host system for BitCom to make a successful connection.

**Note:** Most BBSs (Bulletin Board Services) and PCs use N-8-1, which stands for no parity, eight data bits and one stop bit. Online services typically use E-7-1, which stands for even parity, seven data bits and one stop bit.

**Baud rate** - The baud rate is the speed at which your modem and the host system exchange data. It should be set to the highest speed that your modem and the host support.

If you are using Windows 3.0, the highest speed you can set the baud rate to is 19,200. If you are running Windows 3.1 on a fast computer, you can set the baud rate up to 38,400.

**Parity** - Parity is a simple way to check the integrity of the data you receive. Most online services use no parity or even parity.

**Note:** When you set parity to "None," you must set "Data bits" to 8 bits. Likewise, when you set parity to "Even" (or anything other than "None"), you must set "Data bits" to 7 bits.

**Flow control** - Also called handshaking, flow control regulates the flow of data between your modem and the remote modem, and between your modem and your computer.

- **Xon/Xoff** - This is software flow control that uses control codes to pause and restart the flow of data.
- **Hardware** - This is flow control that uses the RTS and CTS lines of the modem to regulate the flow of data.
- **None** - When selected, BitCom will not use any flow control.

**Note:** In most cases, you should use "Hardware" flow control. When using a high-speed modem that uses a built-in error-correcting protocol (such as MNP-5, V.42 or V.42bis), you must select the "Hardware" flow

control.

**Data bits** - These are the bits of data that make up each character of information your modem sends and receives. The data bits do not include the stop bit or the parity bit. You can set the number of data bits to 7 or 8. Most BBSs and PCs use eight data bits, and most online services use seven.

**Note:** When you set parity to "None," you must set "Data Bits" to 8; if you set it to anything else, you must set "Data bits" to 7.

**Stop bits** - A stop bit marks the end of a character. You can set stop bits to 1 or 2, depending on what is required by the host.

**Check parity** - When selected, BitCom will show an error message when it receives a characters that does not pass the parity check. A character may not pass a parity check because of noise over the phone lines or transmission errors.

### Default connect

These options are used only by script files. They tell BitCom's script file what to do with the record once it is opened. The "Direct" option tells the script file to make a connection with the modem and not to dial a phone number. The "Call" option tells the script file to dial the first data number in the phone book record and make a connection. The "Answer" option tells BitCom to go into answer mode.

### Terminal...

Use this command to change the kind of terminal BitCom is emulating, turn the "Local echo" and "Auto linefeed" options on or off, change the length of the break signal, and select the "Convert to upper-case" option.

This command button opens the [Terminal Settings](#) dialog box.

### File Transfers...

Use this command to select the default protocol BitCom will use when transferring files with the remote system. This command opens the [Select Protocol](#) dialog box.

BitCom supports the ASCII, Xmodem, Ymodem, Ymodem-G, Zmodem and Kermit protocol.

### Function Keys...

Use this command to create or edit the record's on-screen function keys. This command opens the [Function Keys](#) dialog box.

Function Keys let you automate almost any routine communication task. With a click of your mouse, you can log on, open your E-mail, join an electronic conference, etc.

### Startup...

Use this command to specify the script file BitCom will run after it dials and makes a connection with the remote computer. In most cases, you will enter the name of a log-on script file. This command opens the [Startup](#) dialog box.

---

### See Also

[Adding a Phone Book Record](#)

## Edit Record Dialog

Use this command to edit the currently selected phone book record.

---

### Dialog Box Options

#### Record ID

In this group, enter a unique name. You can enter only eight characters.

#### Last name

You can enter the last name of the recipient. (If you are calling an online service or BBS, then you will probably not need to enter a name.)

#### First

You can enter the first name of the recipient. (If you are calling an online service or BBS, then you will probably not need to enter a name.)

#### Company

You can enter a company name.

#### Comments

You can enter a short description of the online service, BBS or company you will be connecting to.

#### Phones

In this group, you can enter one or more data numbers. If the person, service or company you are making a connection with also has a fax and voice number, you can enter them here as well. You can enter up to 12 numbers.

**Number** - In this text-entry box, enter the number of the remote computer. Using the "Add" command, you can also enter a voice and fax number. If you enter a fax or voice number, specify them as such in the "Type" pull-down list; otherwise BitCom will save them as data numbers.

**Note:** If you need to dial a special number to get an outside line, such as "9," you can add it to the end of the "Dial prefix" box in the [Modem Settings](#) dialog box. BitCom will automatically dial the number before it dials the data number.

**Location** - BitCom lets you further organize your phone numbers by location. You can enter a location (up to eight characters) or choose work or home. For example, one phone number could be your voice home number and another the data number of your home computer.

**Type** - In this list box, you can specify how BitCom will dial the specified number you entered in the "Number" text box. Each number can be one of three basic types – data, fax or voice. The data numbers are the numbers BitCom dials when making a connection with another system. In most cases, you can use the "Default data" type, even if you are using a high-speed modem with MNP 5 or V.42bis.

You can also specify numbers as "Fax" or "Voice" numbers. After BitCom dials a voice number, it will prompt you to pick up your phone. You can then talk as you normally would. To hang up, choose "Hang Up" from the Action menu and hang up the phone. Fax numbers can be used by BitWare.

If you select a type other than "Default data" or "Fax" or "Voice," BitCom will initialize the modem with the corresponding string in the [Connection Type](#) dialog box.

**Note:** In most cases, you can classify a number as one of the following – "Default data," "Voice" or "Fax."

- **Default data** - Select this option for data connections, unless you want to make a specific kind of data connection or your modem requires a special initialization string. BitCom will use your modem's default mode.
- **Standard async** - Select this option only if you want to force your modem into a standard mode without error correction or data compression.
- **V.42bis Auto-reliable** - Select this option only if you want to force your modem into V.42bis auto-

reliable mode. You can select this option only if your modem supports this protocol.

**Note:** If your modem offers V.42bis error correction and data correction, its default state most likely will already be set to V.42bis auto-reliable mode, in which case you can select the "Default data" option.

- **V.42 Auto-reliable** - Select this option only if you want to force your modem into V.42 auto-reliable mode. You can select this option only if your modem supports this protocol.
- **V.42bis Reliable** - Select this option only if you want to force your modem into V.42bis Reliable mode. You can select this option only if your modem supports this protocol.
- **V.42 Reliable** - Select this option only if you want to force your modem into V.42 Reliable mode. You can select this option only if your modem supports this protocol.
- **MNP 5** - Select this option only if you want to force your modem into MNP-5 mode. You can select this options only if your modem supports this protocol.
- **MNP 4** - Select this option only if you want to force your modem into MNP-4 mode. You can select this option only if your modem supports this protocol.

**Note:** In most cases, MNP 5 and MNP 4 are already built into the V.42bis protocol.

- **User 1** - Select this option if you want BitCom to initialize your modem with the "User 1" initialization string that was specified in the [Connection Type](#) dialog box.
- **User 2** - Select this option if you want BitCom to initialize your modem with the "User 2" initialization string that was specified in the [Connection Type](#) dialog box.
- **User 3** - Select this option if you want BitCom to initialize your modem with the "User 3" initialization string that was specified in the [Connection Type](#) dialog box.
- **Fax** - Select this option if the number is a fax number.
- **Voice** - Select this option if the number is a voice number.

**Note:** In the [Connection Type](#) dialog box, you can edit and add new modem initialization strings. If you use Rockwell RPI driver, please see [Using Rockwell RPI Driver](#)

## Communications

The most important parameters are the ones in the "Communications" group. These must match the host system for BitCom to make a successful connection.

**Note:** Most BBSs (Bulletin Board Services) and PCs use N-8-1, which stands for no parity, eight data bits and one stop bit. Online services typically use E-7-1, which stands for even parity, seven data bits and one stop bit.

**Baud rate** - The baud rate is the speed at which your modem and the host system exchange data. It should be set to the highest speed that your modem and the host support.

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**Note:** When you set parity to "None," you must set "Data bits" to 8 bits. Likewise, when you set parity to "Even" (or anything other than "None"), you must set "Data bits" to 7 bits.

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- **Xon/Xoff** - This is software flow control that uses control codes to pause and restart the flow of data.
- **Hardware** - This is flow control that uses the RTS and CTS lines of the modem to regulate the flow of data.
- **None** - When selected, BitCom will not use any flow control.

**Note:** In most cases, you should use "Hardware" flow control. When using a high-speed modem that uses

a built-in error-correcting protocol (such as MNP-5, V.42 or V.42bis), you must select the "Hardware" flow control.

**Data bits** - These are the bits of data that make up each character of information your modem sends and receives. The data bits do not include the stop bit or the parity bit. You can set the number of data bits to 7 or 8. Most BBSs and PCs use eight data bits, and most online services use seven.

**Note:** When you set parity to "None," you must set "Data Bits" to 8; if you set it to anything else, you must set "Data bits" to 7.

**Stop bits** - A stop bit marks the end of a character. You can set stop bits to 1 or 2, depending on what is required by the host.

**Check parity** - When selected, BitCom will show an error message when it receives a character that does not pass the parity check. A character may not pass a parity check because of noise over the phone lines or transmission errors.

### Default connect

These options are used only by script files. They tell BitCom's script file what to do with the record once it is opened. The "Direct" option tells the script file to make a connection with the modem and not to dial a phone number. The "Call" option tells the script file to dial the first data number in the phone book record and make a connection. The "Answer" option tells BitCom to go into answer mode.

### Terminal...

Use this command to change the kind of terminal BitCom is emulating, turn the "Local echo" and "Auto linefeed" options on or off, change the length of the break signal, and select the "Convert to upper-case" option.

This command button opens the [Terminal Settings](#) dialog box.

### File Transfers...

Use this command to select the default protocol BitCom will use when transferring files with the remote system. This command opens the [Select Protocol](#) dialog box

BitCom supports the ASCII, Xmodem, Ymodem, Ymodem-G, Zmodem and Kermit protocols.

### Function Keys...

Use this command to create or edit the record's on-screen function keys. This command opens the [Function Keys](#) dialog box.

Function Keys let you automate almost any routine communication task. With a click of your mouse, you can log on, open your E-mail, join an electronic conference, etc.

### Startup...

Use this command to specify the script file BitCom will run after it dials and makes a connection with the remote computer. In most cases, you will enter the name of a log-on script file. This command opens the [Startup](#) dialog box.

---

### See Also

[Editing a Phone Book Record](#)



## Search Command

Use this command to find a particular phone book record. In the "Record ID" text-entry box, enter the ID of the record you are searching for and click on "OK." BitCom will highlight the closest match.

---

[See Also](#)

[Using the Phone Book](#)

## Sort Command

Use this command to sort the phone book according to the Record ID, Name, Company or Phone field. Choose a field to sort the phone book by and click on "OK."

---

[See Also](#)

[Using the Phone Book](#)

## **Print Command (Phone Book Menu)**

Use this command to print a copy of the currently opened phone book list.

---

[See Also](#)

[Using the Phone Book](#)

## Dial/Redial Command (Action Menu or Button)

Use this command to dial/redial the currently selected record of the phone book. This works just like the Redial button of your home phone. If this is the first time you run BitCom, the Default record will be dialed. To select another record, click on the Phone Book button, select a record, and press Dial on the Phone Book Editor window.

---

See Also

[Making a Connection](#)  
[Using the Phone Book](#)

## Auto Answer Command (Action Menu)

Use this command to place BitCom in answer mode. While BitCom is in answer mode, a remote system can make a connection.

---

See Also

[Making a Connection](#)

## Hang Up Command (Action Menu or Button)

Use this command to hang up from the remote PC or computer system. Most online services and BBSs automatically hang up after you log off.

---

[See Also](#)

[Making a Connection](#)

## COM Detach Command (Action Menu)

Use this command to detach BitCom from the COM Port. All connections will be lost. The purpose of doing this is to free up the COM port for other Windows COM applications, such as WinCIM or Windows Terminal, without having to leave BitCom. The information bar at the bottom left of the window will show "Detached".

### Note:

Once BitCom is closed, the COM port is automatically detached.

## **COM Attach Command (Action Menu)**

Use this command to attach BitCom to the COM Port. The information bar at the bottom left of the window will show "Attached". When you start up BitCom, the COM port is attached by default. BitCom will hold on to the COM port until you issue a Detach command (Action Menu) or exit.



## Send File Select Protocol Command (Action Menu or Button)

Use this dialog box to select the file-transfer [protocol](#) with which you will use to send the file(s) to the remote system.

---

### Dialog Box Options

To the left, there is a list of file transfer protocols supported by BitCom.

#### Protocols

You can select one of the following file-transfer [protocols](#)

Xmodem      Ymodem      Kermit      Zmodem

**Hint:** When possible, use the Zmodem protocol. If you transfer a large file, and the connection is lost before completion, Zmodem can continue from the point of failure after you reconnect.

#### Settings...

Use this command to change the parameters of the selected file-transfer protocol. Some protocol allows you to set the block size. If the other side refuses to accept a particular size, you should change the settings to find one that works well.

#### OK

Press this button to proceed with the file transfer. This will bring up the [Send File](#) dialog box.

---

#### See Also

[Choosing a File-Transfer Protocol](#)

[Making a Connection](#)

[Transferring Files with a PC](#)

[Transferring Files with an Online Service](#)

## Send File Dialog

Choose one or more files you want to send (or upload).

**Note:** You cannot select multiple files if you are using the ASCII or Xmodem protocol.

---

### Dialog Box Options

#### Filename

Enter or select the file or files you want to send.

#### Directories

From this list box, you can change the currently opened drive and directory.

#### Files

In this list box, select one or more files. To select more than one record at a time, hold down the [Ctrl] key and click on the records you want to add.

#### Select=>

Use this command to add one or more files to the "Selected files" list. You can also select a file by double-clicking on it.

#### <=Remove

Use this command to remove one or more files from the "Selected files" list. You can also remove a file by double-clicking on it.

#### Selected files

Lists all the selected files.

---

#### See Also

[Making a Connection](#)

[Transferring Files with a PC](#)

[Transferring Files with an Online Service](#)

## Receive File Select Protocol (Action Menu or Button)

Use this dialog box to select the file-transfer [protocol](#) with which you will use to receive file(s) from the remote system.

---

### Dialog Box Options

#### Protocols

You can select one of the following file-transfer protocols – Xmodem, Ymodem, Kermit or Zmodem.

**Hint:** When possible, use the Zmodem protocol.

#### Path...

Use this command to choose the directory in which BitCom will save the downloaded files. This will bring up the [Directory](#) settings dialog box.

#### Settings...

Use this command to change the parameters of the selected file-transfer protocol. Some protocol allows you to set the block size. If the other side refuses to accept a particular size, you should change the settings to find one that works well.

#### OK

Press this button to proceed with the file transfer. This will start the file transfer. The File Transfer Status window will be shown. When the other side is ready, you will see the update of the progress indicator.

---

#### See Also

[Choosing a File-Transfer Protocol](#)

[Making a Connection](#)

[Transferring Files with a PC](#)

[Transferring Files with an Online Service](#)

## Capture File Start Command (Action Menu)

Use this command to save the text you see on your screen to a file. You can choose where BitCom will start capturing, the file to which it will save the text, how it will capture the text, and whether it should append or overwrite an existing file.

---

### Dialog Box Options

#### Filename

Enter or select the file to which you want BitCom to save the captured text.

#### Directories

From this list box, you can change the currently opened drive and directory.

#### Capture mode

The following determines how BitCom will capture text.

**Normal** - Records everything you see on screen, ignoring the control codes and escape sequences. These are the special codes that control the position of the cursor and the text.

**Raw** - Records all data that you receive from the host, including control codes and escape sequences. This is useful for debugging a connection.

**Screen** - Records data as it appears on your screen, but not in the exact order it is received. This compensates for special codes that control the movement of the cursor.

#### Capture from

The following options let you choose where BitCom starts capturing text.

**Here** - Saves all new data that appears on your screen to a file. BitCom will not save data that is already on your screen.

**Top of the scroll buffer** - In addition to new data, this option saves all the data that is already in your scroll buffer. This option is useful for saving data that has already scrolled from your screen.

**Top of screen** - Saves all new data and all the data that is on your screen.

#### Append

Select this option if you want BitCom to add the captured data to the end of the existing file.

#### Replace

Select this option if you want BitCom to replace the text in the existing file with the newly captured text.

**Note:** When the "Replace" option is selected, BitCom will overwrite the text in the existing file.

---

#### See Also

[Capturing Data to a File](#)

[Capturing Data to Your Printer](#)

[Viewing Captured Files](#)

[Printing Captured Files](#)

## Capture File Stop Command (Action Menu)

Use this command to stop file capture.

---

### See Also

[Capturing Data to a File](#)

[Capturing Data to Your Printer](#)

[Viewing Captured Files](#)

[Printing Captured Files](#)

## Print Capture Start Command (Action Menu)

Use this command to save the text you see on your screen to your printer. You can choose where BitCom will start printing.

---

### Dialog Box Options

#### Here

Prints all new data that appears on your screen to a file. BitCom will not print text that is already on your screen.

#### Top of the scroll buffer

In addition to new text, this option prints all the text that is already in your [scroll buffer](#). This option is useful for saving text that has already scrolled off your screen.

#### Top of screen

Saves all new text and all the text currently displayed on your screen.

---

#### See Also

[Capturing Data to a File](#)

[Capturing Data to Your Printer](#)

[Viewing Captured Files](#)

[Printing Captured Files](#)

## Print Capture Stop Command (Action Menu)

Use this command to stop print capture.

---

### See Also

[Capturing Data to a File](#)

[Capturing Data to Your Printer](#)

[Viewing Captured Files](#)

[Printing Captured Files](#)

## Edit Parameters Command (Settings Menu)

Use this command to change the connection information of a currently opened phone book record, such as the data number, baud rate, local echo, etc.

---

### Dialog Box Options

#### Record ID

In this group, enter a unique name. You can enter only eight characters.

#### Last name

You can enter the last name of the recipient. (If you are calling an online service or BBS, then you will probably not need to enter a name.)

#### First

You can enter the first name of the recipient. (If you are calling an online service or BBS, then you will probably not need to enter a name.)

#### Company

You can enter a company name.

#### Comments

You can enter a short description of the online service, BBS or company you will be connecting to.

#### Phones

In this group, you can enter one or more data numbers. If the person, service or company you are making a connection with also has a fax and voice number, you can enter them here as well. You can enter up to 12 numbers.

**Number** - In this text-entry box, enter the number of the remote computer. Using the "Add" command, you can also enter a voice and fax number. If you enter a fax or voice number, specify them as such in the "Type" pull-down list; otherwise BitCom will save them as data numbers.

**Note:** If you need to dial a special number to get an outside line, such as "9," you can add it to the end of the "Dial prefix" box in the [Modem Settings](#) dialog box. BitCom will automatically dial the number before it dials the data number.

**Location** - BitCom lets you further organize your phone numbers by location. You can enter a location (up to eight characters) or choose work or home. For example, one phone number could be your voice home number and another the data number of your home computer.

**Type** - In this list box, you can specify how BitCom will dial the specified number you entered in the "Number" text box. Each number can be one of three basic types – data, fax or voice. The data numbers are the numbers BitCom dials when making a connection with another system. In most cases, you can use the "Default data" type, even if you are using a high-speed modem with MNP 5 or V.42bis.

You can also specify numbers as "Fax" or "Voice" numbers. After BitCom dials a voice number, it will prompt you to pick up your phone. You can then talk as you normally would. To hang up, choose "Hang Up" from the Action menu and hang up the phone. Fax numbers can be used by BitWare.

If you select a type other than "Default data" or "Fax" or "Voice," BitCom will initialize the modem with the corresponding string in the [Connection Type](#) dialog box.

**Note:** In most cases, you can classify a number as one of the following – "Default data," "Voice" or "Fax."

- **Default data** - Select this option for data connections, unless you want to make a specific kind of data connection or your modem requires a special initialization string. BitCom will use your modem's default mode.
- **Standard async** - Select this option only if you want to force your modem into a standard mode without error correction or data compression.



- **V.42bis Auto-reliable** - Select this option only if you want to force your modem into V.42bis auto-reliable mode. You can select this option only if your modem supports this protocol.
- Note:** If your modem offers V.42bis error correction and data correction, its default state most likely will already be set to V.42bis auto-reliable mode, in which case you can select the "Default data" option.
- **V.42 Auto-reliable** - Select this option only if you want to force your modem into V.42 auto-reliable mode. You can select this option only if your modem supports this protocol.
  - **V.42bis Reliable** - Select this option only if you want to force your modem into V.42bis Reliable mode. You can select this option only if your modem supports this protocol.
  - **V.42 Reliable** - Select this option only if you want to force your modem into V.42 Reliable mode. You can select this option only if your modem supports this protocol.
  - **MNP 5** - Select this option only if you want to force your modem into MNP-5 mode. You can select this options only if your modem supports this protocol.
  - **MNP 4** - Select this option only if you want to force your modem into MNP-4 mode. You can select this option only if your modem supports this protocol.

**Note:** In most cases, MNP 5 and MNP 4 are already built into the V.42bis protocol.

- **User 1** - Select this option if you want BitCom to initialize your modem with the "User 1" initialization string that was specified in the [Connection Type](#) dialog box.
- **User 2** - Select this option if you want BitCom to initialize your modem with the "User 2" initialization string that was specified in the [Connection Type](#) dialog box.
- **User 3** - Select this option if you want BitCom to initialize your modem with the "User 3" initialization string that was specified in the [Connection Type](#) dialog box.
- **Fax** - Select this option if the number is a fax number.
- **Voice** - Select this option if the number is a voice number.

**Note:** In the [Connection Type](#) dialog box, you can edit and add new modem initialization strings. If you use Rockwell RPI driver, please see [Using Rockwell RPI Driver](#)

## Communications

The most important parameters are the ones in the "Communications" group. These must match the host system for BitCom to make a successful connection.

**Note:** Most BBSs (Bulletin Board Services) and PCs use N-8-1, which stands for no parity, eight data bits and one stop bit. Online services typically use E-7-1, which stands for even parity, seven data bits and one stop bit.

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**Parity** - Parity is a simple way to check the integrity of the data you receive. Most online services use no parity or even parity.

**Note:** When you set parity to "None," you must set "Data bits" to 8 bits. Likewise, when you set parity to "Even" (or anything other than "None"), you must set "Data bits" to 7 bits.

**Flow control** - Also called handshaking, flow control regulates the flow of data between your modem and the remote modem, and between your modem and your computer.

- **Xon/Xoff** - This is software flow control that uses control codes to pause and restart the flow of data.
- **Hardware** - This is flow control that uses the RTS and CTS lines of the modem to regulate the flow of data.
- **None** - When selected, BitCom will not use any flow control.

**Note:** In most cases, you should use "Hardware" flow control. When using a high-speed modem that uses a built-in error-correcting protocol (such as MNP-5, V.42 or V.42bis), you must select the "Hardware" flow control.

**Data bits** - These are the bits of data that make up each character of information your modem sends and receives. The data bits do not include the stop bit or the parity bit. You can set the number of data bits to 7 or 8. Most BBSs and PCs use eight data bits, and most online services use seven.

**Note:** When you set parity to "None," you must set "Data Bits" to 8; if you set it to anything else, you must set "Data bits" to 7.

**Stop bits** - A stop bit marks the end of a character. You can set stop bits to 1 or 2, depending on what is required by the host.

**Check parity** - When selected, BitCom will show an error message when it receives a character that does not pass the parity check. A character may not pass a parity check because of noise over the phone lines or transmission errors.

### Default connect

These options are used only by script files. They tell BitCom's script file what to do with the record once it is opened. The "Direct" option tells the script file to make a connection with the modem and not to dial a phone number. The "Call" option tells the script file to dial the first data number in the phone book record and make a connection. The "Answer" option tells BitCom to go into answer mode.

### Terminal...

Use this command to change the kind of terminal BitCom is emulating, turn the "Local echo" and "Auto linefeed" options on or off, change the length of the break signal, and select the "Convert to upper-case" option.

This command button opens the [Terminal Settings](#) dialog box.

### File Transfers...

Use this command to select the default protocol BitCom will use when transferring files with the remote system. This command opens the [Send File](#) dialog box.

BitCom supports the ASCII, Xmodem, Ymodem, Ymodem-G, Zmodem and Kermit protocols.

### Function Keys...

Use this command to create or edit the record's on-screen function keys. This command opens the [Function Keys](#) dialog box.

Function Keys let you automate almost any routine communication task. With a click of your mouse, you can log on, open your E-mail, join an electronic conference, etc.

### Startup...

Use this command to specify the script file BitCom will run after it dials and makes a connection with the remote computer. In most cases, you will enter the name of a log-on script file. This command opens the [Startup](#) dialog box.

---

### See Also

[Editing a Phone Book Record](#)

## Save Parameters Command (Settings Menu)

Use this command to save any changes you made to the currently opened phone book record. BitCom will save the phone book record's connection information, such as the data number, baud rate, local echo, etc.

---

See Also

[Editing a Phone Book Record](#)

## Save Parameters As... Command (Settings Menu)

Use this command to save the currently opened phone book record with a different record ID, first and last name, and any other connection information, such as the data number, baud rate, local echo, etc. This command is useful for creating a new phone book record based on an existing one.

**Note:** To save the phone book record with its existing name and connection information, use the "Save Parameters" command.

---

See Also

[Editing a Phone Book Record](#)

## System Command (Settings Menu)

The Modem Settings dialog box contains the commands BitCom will send to your modem. It also lets you specify which COM port your modem is using. You will probably need to change these settings only once. The most important setting is the COM port.

### Modem

In this list box, you can choose the kind of modem you are using. If you choose RPI, please see [Using Rockwell RPI Driver](#)

### Connect Type

Use this command to change the [initialization string](#) BitCom sends to your modem. This command opens the [Connection Type](#) dialog box.

### Modem strings

The Modem Strings contain the commands BitCom sends to your modem. These commands will work for most Hayes-compatible modems.

**Caution:** Do not change these commands without consulting your modem's manual.

**Dial prefix** - These commands tell your modem to dial. If you have to dial a special number(s) to get an outside line (e.g., "9,"), add it to the end of the command string. The comma stands for a two-second pause. If you are using a pulse-dialing line, change the "T" in "DT" to "P", for example, ATX2DP.

**Dial suffix** - This command tells your modem to start dialing. The hex value \$0D (which stands for a carriage return) works with Hayes-compatible modems.

**Answer** - This command tells your modem to answer calls automatically. BitCom sends this string when you use the "Auto Answer" command to instruct your modem to answer a call.

**Hangup** - This command tells your modem to hang up. BitCom sends this string when you use the Hang Up command to disconnect.

**Voice suffix** - This command tells your modem to dial but not connect. BitCom sends this string when you dial a Voice phone number.

### Display strings

These are the messages BitCom expects from your modem when it has made a connection, disconnected or detects a busy signal. They are not just messages to the user.

**Busy** - This is the message BitCom expects from your modem when it has detected a busy signal.

**Connect** - This is the message BitCom expects from your modem when it has made a connection with the remote computer.

**Disconnect** - This is the message BitCom expects from your modem when it has successfully disconnected from the remote computer.

**Caution:** Do not change these commands without consulting your modem's manual. Display messages are case-sensitive. If you do need to change these commands, enter them exactly the way they appear in your modem's manual.

### Dial

When you select Redial, BitCom redials a number after an unsuccessful attempt. You can specify how many attempts BitCom will make and the number of seconds BitCom will wait between attempts.

**Note:** Set the "Redial" time to at least 40 seconds. The default is 60 seconds.

### Port

Choose the COM port that your modem uses. Most modems are preset to use COM 2. Make sure no other serial device is using the same COM port. If another serial device is using the same COM port, your modem will not function properly.

**Note:** If your modem is configured to COM 3 or COM 4, see [Using COM 3 or COM 4](#).

## Connection Type Command

Use this command to change the [initialization string](#) BitCom sends to your modem. You will need to modify these strings only if your modem requires a special initialization string. In most cases, you will not need to use this command.

**Caution:** Do not change these settings without consulting your modem's manual or our technical support staff.

**Connect type** - In this text-entry box, you can change the name of an initialization string.

**Initial string** - In this text-entry box, you can enter or edit an initialization string.

**Connect type initial strings** - In this list box, you can select which initialization string you want to modify.

## Display Command (Settings Menu)

Use this command to customize BitCom's main window. You can use this command to choose how BitCom shows its Tools Bar, Status Bar and Function Keys. You can also change the color, size and font of the text in the terminal window.

### Show toolbar

Select this option if you want BitCom to display the toolbar.

### Show status bar

Select this option if you want BitCom to display the status bar.

### Show function keys

Select this option if you want BitCom to display the Quick Dial keys and the function keys.

### Status bar

You can select which of the following elements you want BitCom to display in the lower status bar. You can also select how you can change settings from the status bar.

**Connection status** - This area displays the current connection status: Attached (to COM port), Detached, Online or Busy. This area is only informational. You cannot change the connection status with your mouse.

**Terminal emulation** - Displays emulation status. This area displays which terminal BitCom is configured to emulate.

**Communication port** - Displays the communication port status area. This area shows which COM port BitCom is using. You cannot change your COM port number while online.

**Line settings** - Displays the baud rate, number of data bits, parity and the number of stop bits.

**Capture filename** - Displays the name of the captured file BitCom is saving data to and lets you turn Data Capture on and off.

**Print status** - Show whether Print Capture is on or off.

**Current time** - Displays the current time at the upper-top of the status bar. This area is only informational.

**Elapsed time** - Displays the time you have spent online at the bottom of the Status Bar. The time is reset every time you dial and go online. This area is only informational.

**Selection** - These options determine how you can use your mouse to change the communication parameters in the lower status bar.

- **Single-click** - Lets you change your communication parameters with a single click of your mouse. Click your mouse's left button to move forward through the selections and the right button to move backward.
- **Double-click** - Lets you change your communication parameters with a double click of your mouse. This option helps prevent you from accidentally changing your communication parameters. Double-click your mouse's left button to move forward through the selections and the right button to move backward.
- **Pop-up menu** - Opens a pop-up menu from which you can change your communication parameters.

### Function keys

This section lets you determine how BitCom will display the Quick Dial keys and the function keys.

**Show only 1 row** - Forces BitCom to show all the function keys and the Quick Dial keys in one row. As a result, some of the longer key labels will be cut off as BitCom squeezes all the keys into one row.

**Show only defined** - When selected, BitCom will show only those keys you have assigned commands to and labeled.



**Show Key Names** - When selected, BitCom will show the name of the key used to invoke the key, as well as the key's label.

## Scroll buffer

This section lets you change the font that appears in the Terminal Screen, as well as the color of the foreground text and the background on which they appear.

**Font** - In this list box, you can choose a fixed-pitched screen font that is installed in your system, such as Courier New and Terminal.

**Note:** The Terminal font can use graphic character, which are used by some online services to create menus and graphics. The Courier font does not support graphic characters.

**Size** - In this text-entry box lets, you can choose the size of the Terminal Screen font.

**Lines** - Displays the current setting of the total number of lines use scroll buffer area. The scroll buffer is a memory area that temporally stores the text that appears on your screen. As text scrolls off the screen, BitCom saves it in its buffer. When you want to see text that scrolled by, you can use your arrow keys or click on the scroll bars to scroll backward. You can either increase or decrease the number of scroll lines by simply typing a new value in the field.

The scroll buffer is circular. When the scroll buffer is full, BitCom disregards the old text to make room for the new. A screen equals approximately 24 lines of text. So BitCom's scroll buffer can hold approximately 6½ screens. To clear the contents in the scroll buffer, choose the Clear Buffer command from the Edit menu.

**Foreground** - In this list box, you can choose the color of the foreground characters.

**Background** - In this list box, you can choose the color of the background color on which the characters will appear. For example, you can choose blue text on a white background.

## Keys

This option box lets you override Windows and BitCom's keyboard shortcuts (e.g., [Alt-F] opens the File menu) when there is a conflict with an assigned function key. When selected, BitCom uses Windows and BitCom's keyboard shortcuts. For example, if you press [Alt-S] at BitCom's window, the Settings menu will open, even if you assigned the key combination [Alt-S] to the SENDFILE command. When this option is cleared, BitCom uses the function keys you assigned with a script file. For example, BitCom will invoke the SENDFILE command instead of opening the Settings menu.

## Configuring Chat Mode

During a connection or session, BitCom provides two options that affect the operation of the Chat Mode. In the first option, a line of text is sent to the destination computer after a carriage return is pressed. While in the second option, each keystroke is sent to the destination computer as it is being pressed.

### To configure Chat Mode:

1. Click on Settings in the BitCom Windows.
2. Select Display from the drop list.
3. Select the configuration for Chat Mode.
4. Click OK.

---

### See Also

[Creating Function Keys](#)  
[Using the Quick Dial Keys](#)  
[Placing BitCom into Chat Mode](#)



## Directories Command (Settings Menu)

Use this command to choose the default directories that BitCom uses to save files that you exchange and files that it creates when capturing data.

**Note:** These are the initial or default directories BitCom uses. You can later specify other directories when you transfer a file or capture data to a file.

### Capture

In this text-entry box, you can enter the full path of the directory to which you want BitCom to save the files it captures. For example, you can specify C:\BCOMWIN\CAPTURE\ as your default capture directory.

### File transfer

In this text-entry box, you can enter the full path of the directory to which you want BitCom to save the files you receive from a remote system.

---

#### See Also

[Capturing Data](#)

[Transferring Files with a PC](#)

[Transferring Files with an Online Service](#)

## Quick Dial Keys Dialog Box

Use this command to create or edit Quick Dial keys. You can create up to 12 Quick Dial keys.

---

### Dialog Box Options

#### Key

Enter or edit a key combination.

A key combination can be any function key (F1 - F12) or a combination of the [Alt] or [Ctl] keys with almost any other letter (e.g., [Ctl-L]). (You cannot use a number.) The following are valid keys and key combinations:

```
Ctl-A through Ctl-Z  
Alt-A through Alt-Z  
F1 through F12
```

If you use terminal emulation, be careful not to assign a key that has a special meaning to the terminal you are emulating. For example, [F1] on the VT100 terminal is the Gold key.

**Note:** Avoid using special Windows key combinations (e.g., [Alt-F4], which closes an application) or the key shortcuts on the BitCom menu bar. Windows and Windows applications use key combinations that begin with the [Alt] key. To avoid most conflicts, use combinations that begin with the [Ctl] key.

#### Label

Enter a descriptive label. The number of characters BitCom can display depends on the number of buttons you have defined, whether BitCom is displaying one or two rows of keys, and the size of the BitCom window.

#### Command

In this text-entry box, enter the INVOKE command followed by the name of the script file. For example, you could enter:

```
INVOKE BBS.SCP
```

When you click on the assigned Quick Dial key, BitCom will run the specified script file.

#### Color

You can choose one of eight colors.

#### Buttons

Select the "1-6" option to edit the first six Quick Dial keys, and "7-12" to edit the last six.

---

#### See Also

[Using the Quick Dial Keys](#)

## Script Editor Command (Script Menu)

Use this command to edit a script file. In the "Filename" text-entry box, enter or choose a script file to edit. BitCom will use Windows Notepad as its editor.

---

[See Also](#)

[Script Reference](#)

## Invoke Script Command (Script Menu)

Use this command to start a script file. In the "Filename" text-entry box, enter or choose a script file to run.

---

[See Also](#)

[Script Reference](#)

## Script Recorder (Script Menu)

Use this command to record events that will occur during the execution of a script.

---

[See Also](#)

[Script Reference](#)

## Abort Script File Command (Script Menu)

Use this command to stop any script files from running.

---

[See Also](#)

[Script Reference](#)



## Terminal Settings Dialog

If you are going to connect with a system that requires terminal emulation, specify which kind of terminal emulation you want to use in the Terminal Settings dialog box. You can also change terminal emulation from the Status Bar.

Generally, you should use terminal emulation only if the host specifically instructs you to do so. Check with the company or department running the system if you are unsure which kind of terminal to emulate.

Select the kind of terminal you want BitCom to emulate in the Terminal Emulation drop-down list box. BitCom will then adjust your system to act like the specified terminal. For example, when you emulate an IBM 3101 terminal, the F1 through F8 keys become PF1 through PF8.

BitCom emulates the following terminals:

- |  |            |
|--|------------|
| • ANSI color/graphics                          | ANSI.EMU   |
| • IBM 3101                                     | 3101.EMU   |
| • IBM 3708                                     | 3708.EMU   |
| • IBM 7171                                     | 7171.EMU   |
| • TeleVideo 920                                | TVI920.EMU |
| • TeleVideo 920, 925 and 955                   | TVI9xx.EMU |
| • DEC VT100 with ANSI support                  | vt100a.emu |
| • DEC VT100 with ANSI support and VT52 support | vt100b.emu |
| • Wyse 50                                      | WYSE50.EMU |
| • Wyse 60                                      | WYSE60.EMU |

## Filters

**Convert to upper-case** - When you select this filter, BitCom converts all the lower-case characters to upper-case.

**Local echo** - Select this option if the characters you type do not appear on your screen. This happens if the host system does not echo (send back) the characters you type. (When connected to another PC, you usually need to select Local Echo.)

If, however, you see two characters for each one you type (ttypppee), then clear the Local Echo check box.

**Auto linefeed** - When this option is selected, BitCom sends a line-feed character (LF) to the display when it receives a carriage return from the host system.

If the cursor moves to the beginning of the same line when you press E, select this option. If incoming data is double spaced, clear this check box.

**Input filter (strip hi bit)** - When selected, BitCom removes special control codes by setting the high bit of incoming characters to 0. This is known as stripping characters.

Select this option if you see unwanted graphic characters on your screen. (Note that "garbage" characters can also appear from telephone line noise.)

**Note:** If you are using ANSI terminal emulation, do not select this option.

## Break

Occasionally, a host needs a break signal to wake it up or to interrupt it from what it is doing. The break time is the length of time BitCom will send that signal. In the Break time text-entry box, enter the length of the break signal in hundredths of a second. The default is 40.

To send a break signal, use the command SBREAK in either a function key or a script file. For example, you could assign the command SBREAK to a function key labeled Break.

---

See Also

[Using Terminal Emulation](#)

## Function Keys Dialog

Use this command to create or edit on-screen function keys. You can create a set of up to 12 custom function keys for each phone book record.

---

### Dialog Box Options

#### Key

Enter or edit a key combination.

A key combination can be any function key (F1 - F12) or a combination of the [Alt] or [Ctl] keys with almost any other letter (e.g., [Ctl-L]). (You cannot use a number.) The following are valid keys and key combinations:

```
Ctl-A through Ctl-Z
Alt-A through Alt-Z
F1 through F12
```

If you use terminal emulation, be careful not to assign a key that has a special meaning to the terminal you are emulating. For example, [F1] on the VT100 terminal is the Gold key.

**Note:** Avoid using special Windows key combinations (e.g., [Alt-F4], which closes an application) or the key shortcuts on the BitCom menu bar. Windows and Windows applications use key combinations that begin with the [Alt] key. To avoid most conflicts, use combinations that begin with the [Ctl] key.

#### Label

Enter a descriptive label. The number of characters BitCom can display depends on the number of buttons you have defined, whether BitCom is displaying one or two rows of keys, and the size of the BitCom window.

#### Command

Enter one of the following:

- Text that you routinely send to the host.  
Text you want BitCom to send to the host must be in double quotes. For example, if you were to create a set of function keys for a phone book record for CompuServe, you might enter something like this:

```
"GO MAIL $0D$0A"
```

This command to start CompuServe's electronic-mail service is followed by a carriage return and a line-feed character. A carriage return is represented by the hexadecimal value "\$0D," and the line-feed character is represented by the value "\$0A." For a list of hexadecimal values, see Appendix G, *"ASCII Code Table."* You can enter only one line of text (up to 200 characters, including spaces).

- A script command.  
You can enter a single script command. For example, if you want BitCom to send a break signal to the host, enter
- A script file.  
To assign a script file to a key, enter the INVOKE command followed by the name of the script file. For example, you could enter:

```
SBREAK
```

```
INVOKE LOGON.SCP
```

When you click on the assigned function key, BitCom will run the LOGON.SCP script file.

#### Color

You can choose one of eight colors.

**Buttons**

Select the "1-6" option to edit the first six function keys, and "7-12" to edit the last six.

**Filename**

Enter or select a [filename](#).

**Open**

Use this command to open the selected function-key file.

**Save**

Use this command to save changes to the currently opened function-key file.

---

**See Also**

[Creating Function Keys](#)

## **Auto Answer Dialog**

To place BitCom out of host mode, click on "Cancel."

## ASCII File Transfer Settings Dialog

The ASCII protocol has no error checking. In general, use this protocol only when the computer you are exchanging files with does not support an error-correcting protocol, such as Zmodem or Kermit.

**Note:** Use this protocol **only** with ASCII (plain-text) files. Do not use this protocol to transfer binary files, such as formatted documents, computer programs and graphics.

The default settings work for most PC-to-PC communications. You might need to change some of the parameters when communicating with a mainframe. When downloading a file with this protocol, BitCom will display the data you are receiving.

**Expand tabs** - When selected, BitCom lets you specify the number of blank spaces it will use as a tab.

**Blank lines** - When selected, BitCom will replace a blank line (a line with just a carriage return, or a carriage return and a line feed) with a space (a line with a space character followed by a carriage return or a carriage return and a line feed). Some systems interpret a blank line as an end-of-file signal. This option lets you include blank lines in your messages without the remote computer misinterpreting them as end-of-message signals.

**Output filter (no LF in Send)** - When selected, BitCom will filter out all the line-feed characters in files you send.

### Char Delay

This section lets you specify the delay BitCom takes after it sends a character.

**Delay 1/100 second** - This filter can be set to zero (the default) for no delay or to hundredths of a second. When a number is entered, BitCom waits that many hundredths of a second before sending the next character.

**Echo (wait for a char)** - When selected, BitCom waits for the host to echo a character before it sends the next character.

### Line Delay

This section let you specify the delay BitCom takes after it sends a line of text.

**Delay 1/100 second** - When selected, BitCom will wait the number of hundredths of a seconds entered before sending the next line of text. When this option is set to 0, BitCom will not wait.

**Echo (wait for line feed char)** - When selected, BitCom will wait for a line-feed character (LF) before sending the next line.

**Manual (wait for a key)** - When set to Manual, BitCom waits for you to press any key before sending the next line.

**Char (wait for char)** - When selected, BitCom waits to receive the character specified (in ASCII code) before sending the next line.

---

### See Also

[Choosing a File-Transfer Protocol](#)

[Making a Connection](#)

[Transferring Files with a PC](#)

[Transferring Files with an Online Service](#)

## Xmodem Settings Dialog

BitCom supports the following four versions of Xmodem.

**Xmodem checksum** - This version of Xmodem is the first in a family of Xmodem protocols and is the most widely available. It sends 128-byte blocks of data and uses a simple check-sum method of error detection.

This protocol, however, does not maintain the file's original name or size, rounding up to the nearest 128-byte block. Also, you can send only one file at a time with this protocol.

**Xmodem CRC** - This protocol has all the features of Xmodem, except it uses Cyclic Redundancy Check (CRC) error detection, a more effective error-detection technique.

**Xmodem 1K** - This protocol is similar to Xmodem CRC, except it sends 1K-byte blocks of data, instead of 128-byte blocks. Sending 1K blocks greatly increases efficiency when sending files over a long distance.

**Xmodem 1K G** - This protocol is similar to Xmodem 1K, except it sends data in a steady stream without checking for errors. Use this protocol only with high-speed modems that use built-in error-correcting protocols, such as a MNP-5 or V.42bis. If an error occurs during the transfer, you must send the file again.

---

### See Also

[Choosing a File-Transfer Protocol](#)

[Making a Connection](#)

[Transferring Files with a PC](#)

[Transferring Files with an Online Service](#)

## Ymodem Settings Dialog

BitCom supports two versions of the Ymodem protocol.

**Ymodem.** This protocol is an improved version of the Xmodem protocol. Besides using CRC error detection and sending 1K-blocks of data, it retains the original file's name and size, an important feature when sending program files. This protocol also lets you send and receive more than one file at a time.

**Ymodem G.** This variation of Ymodem sends files in a continuous stream, without checking for acknowledgments. This "streaming" method offers greater efficiency, but does not check for errors.

**Note:** Use Ymodem G only with high-speed modems that use built-in error-correcting protocols, such as MNP-5 or V.42bis. If an error does occur during a file transfer, you must send the file again. When possible, use the Zmodem protocol over Ymodem G, even with error-correcting modems. Zmodem is just as fast as Ymodem G, but provides additional error correction and other features.

---

### See Also

[Choosing a File-Transfer Protocol](#)

[Making a Connection](#)

[Transferring Files with a PC](#)

[Transferring Files with an Online Service](#)



## Zmodem Settings Dialog

The Zmodem protocol, as the name implies, is a further improvement of the Ymodem protocol. Zmodem is an error-correcting, "streaming" protocol that sends data in a steady stream. Instead of always waiting for acknowledgment after sending each block of data, Zmodem interrupts a transmission only when it detects an error. When transferring files over a long distance, Zmodem's streaming method can greatly improve throughput over send-and-wait protocols, such as Xmodem, Ymodem and Kermit.

Zmodem also allows you to send and receive multiple files, and retains the original name, size and creation date of each file. In addition, Zmodem features autodownloading and file recovery, which lets you resume an interrupted file transfer.

**Auto downloading enabled** - When enabled, BitCom will automatically begin receiving a file when it receives the initial Zmodem header block from the remote system. You do not need to choose the "Receive File..." command or click on the Receive File button to begin receiving a file.

**Note:** Because of conflicts between certain key sequences and the characters that initiate automatic downloading, Auto Downloading does not work with WYSE 50 emulation.

**Resume interrupted file transfer** - When selected, BitCom can resume sending a file after an interruption. If while you are sending a file the remote system stops receiving (e.g., lost power or user abort), you can reconnect and resume sending the file from the point of interruption. This saves you time and the trouble of sending the entire file again.

**Note:** For BitCom to resume sending a file where it left off, the receiving system must set the "File transfer crash recovery" option to Append (or an equivalent option if another data communication program is being used).

### File transfer crash recovery

This setting determines what BitCom will do if a remote system resends a file after an interrupted file download. (These options apply only when receiving files.)

- **Append** - When selected, BitCom will check the source file to determine the number of blocks already successfully received and append the remaining number of blocks to the end of the file. For BitCom to resume sending a file where it left off, the sending system must enable the "Resume Interrupted File Transfer" option (or an equivalent option if they are using another data communication program).
- **Protected** - When selected, BitCom will not overwrite any files with the same name. Instead, it will rename the files (changing the extension to '000,' '001,' '002,' etc.) and start the transfer from the beginning.
- **Overwrite** - When selected, BitCom will overwrite any files already partially received and start the transfer from the beginning.
- **Update (different)** - When selected, BitCom will check the date and size of the destination file and the source file. If the date or size is different, then BitCom will replace the destination file with the source file and start the transfer from the beginning. If they are the same, BitCom will skip that file and resume receiving any other files.
- **Update (newer)** - When selected, BitCom will compare the date of the source file and the destination file. If the source file is newer, BitCom will overwrite the destination file; otherwise, BitCom will skip that file and resume receiving any other files.
- **Update (newer & longer)** - When selected, BitCom will compare the date and length of the source file and the destination file. If the source file is newer and longer, BitCom will replace the destination file; if not, BitCom will skip that file and resume receiving any other files.

### File Type

When sending or receiving binary files (such as documents from a word processor, a program or graphic), select the "Binary" option, the default. When transferring data with a system that understands only seven-bit data, such as a mainframe, set to "Hex."

### Error detection

This field can be set to "32-bit CRC" or "16-bit CRC" error detection. The default, "32-bit CRC," provides more accurate error detection, but takes slightly longer than "16-bit CRC" error detection.

## Window size

This setting determines how BitCom will send files. When using a high-speed modem with built-in error correcting, such as MNP-5 or V.42bis, use the "Streaming" method. If you are sending files over noisy phone lines (without an error-correcting modem) or through a packet-switching network, you will probably need to send files in blocks of data.

**Note:** Because Zmodem automatically uses the transmission method of the sender, this setting only applies to files you send from your PC to a remote computer.

**Streaming** - When selected, BitCom will send data in a steady stream until the file is transferred or the remote system requests the retransmission of data. This method is about 98 percent efficient, since it eliminates the overhead of checking each block of data.

**Hint:** When using a high-speed modem with built-in error correcting, such as MNP-5 or V.42bis, use the "Streaming" method.

**1K window** - When selected, BitCom will send data in 1K blocks. After BitCom sends each block of data, it will check for an acknowledgment.

**2K window** - When selected, BitCom will send data in 2K blocks. After BitCom sends each block of data, it will check for an acknowledgment.

**4K window** - When selected, BitCom will send data in 4K blocks. After BitCom sends each block of data, it will check for an acknowledgment.

**Hint:** Use large blocks over clear lines and small blocks over noisy lines. After BitCom sends each block of data, it will check for an acknowledgment. Also, if Zmodem does not work with another BBS, please first try to use Streaming. This is because some BBS does not use blocks!

---

## See Also

[Choosing a File-Transfer Protocol](#)

[Making a Connection](#)

[Transferring Files with a PC](#)

[Transferring Files with an Online Service](#)

## Kermit Settings Dialog

Kermit shares many of the features of the Ymodem protocol. It can send more than one file at a time and can maintain a file's original name and size. In addition, it provides better error detection. It is, however, generally slower than the Ymodem and Zmodem protocols.

The Kermit protocol is often used for PC-to-mainframe communications because it allows you to transfer binary files (program files, graphic files or any other formatted files) to a mainframe. Many mainframes support only ASCII (seven-bit) data and do not understand the special control characters of binary data. When Kermit encounters control characters in binary (eight-bit) data, it translates them into seven-bit characters that the host can understand.

**Max packet size** - In this field you can enter the maximum size of each packet of data BitCom sends and receives. You can use a different size when sending and receiving files. The length can be from 10 to 200 bytes. When you select the Long Packet option, you can enter a maximum size of 9024 bytes.

**Hint:** You should send and receive long packets only over clear phone lines. Otherwise, the time spent resending blocks of corrupted data will outweigh the benefits of sending large blocks of data.

**Note:** Older versions of Kermit can send and receive packets of up to only 94.

**End of Line char** - This specifies the end-of-packet character. This is usually the CR (ASCII 13) for both sent and received packets.

**Pad char** - In this text-entry box, you can specify the padding character BitCom sends before sending each packet. The default is ASCII 32, the space character.

**Quote char** - The quote character is usually set to ASCII 35, the # character.

**First packet char** - This character specifies the start of a packet. The default is the SOH character (ASCII 1, Control-A).

**Handshake char** - BitCom waits for this character before sending a packet of data. The default is the SOH character (ASCII 1).

**Timeout** - In this text-entry box, you can enter the number of seconds BitCom waits for the host to send a packet of data and the number of seconds it waits to receive one before aborting the file transfer. The default is 15 seconds to receive and 10 seconds to send.

**Long packet** - When you select this option, BitCom can send and receive packets of up to 9K. You should use this option only with clear communication lines.

**Filename warn** - When selected, BitCom checks whether the file you are receiving would overwrite an existing file. If so, BitCom will rename the incoming file. If this option is not selected, BitCom automatically overwrites existing files.

**Need quote char** - When selected, BitCom will use the quote characters entered in the Quote char text-entry boxes.

### Window

BitCom supports Kermit's sliding window protocol. During a full-duplex connection, Kermit can send packets without waiting for a reply, allowing for a continuous transmission. This greatly improves Kermit's throughput.

**Size** - In this text-entry box, enter the number of packets that the host's Kermit can receive at any given time without acknowledgment.

**Max size** - In the box, enter the maximum number of packets (up to five) that BitCom's Kermit can receive at any given time without acknowledgment.

**Sliding window** - Select this option to enable Kermit's sliding window protocol.

### Check Method

In this section, you can choose the kind of error detection BitCom uses.

**1 Byte checksum** - When selected, BitCom's Kermit will use the normal 1-byte method using six bits and checksum error detection.

**2 Byte checksum** - When selected, BitCom's Kermit will use the 2-byte method using 12 bits and checksum error detection.

**3 Byte CRC** - When selected, BitCom's Kermit will use the 3-byte method using 16 bits and CRC (Cyclic Redundancy Check) error detection.

## File Type

In this section, you can specify the type of file you are transferring.

**Text** - Select this option if you are transferring text ([ASCII](#)) files

**Binary** - Select this option if you are transferring [binary files](#).

---

### See Also

[Choosing a File-Transfer Protocol](#)

[Making a Connection](#)

[Transferring Files with a PC](#)

[Transferring Files with an Online Service](#)

## Startup Dialog

Use this command to specify the script file BitCom will run after it dials and makes a connection with the remote computer. In the "Script file" box, specify a script file.

In most cases, you will enter the name of a log-on script file. For example, you can enter a script file that automatically enters your user ID and password, such as COMPSERV.ACT for CompuServe™. Then when you dial the online service, BitCom will automatically log you on.

**Note:** If the script file is not in BitWare's current directory, specify the full path name of the file (e.g., C:\BITCOM\SCRIPT\COMSERV.ACT).

---

### See Also

[Creating a Log-on Script File](#)

[Logging on with a Script File](#)

## Menu Commands and Screens

BitCom provides instant help for any command or opened screen.

### **To get information about individual menu commands or a screen:**

1. Open the screen or highlight the command you want information about.  
To highlight a specific menu command, click on the top of the menu and use your arrow keys to highlight the command.
2. Press [F1] on your computer's keyboard.

BitCom will automatically display information about the selected command or opened screen.

## Making a Connection

The following explains how to call and make a connection with another computer. It also explains how to set up BitCom so someone can call and make a connection with your PC.

### Calling a Remote Computer

The following shows you how to dial and make a connection with a host system.

#### To call a remote computer:

1. If you have not already, double click the BitCom icon.
2. Open a phone book and select the record of the remote computer you want to call.  
If a phone book record for the remote computer does not exist, create a new record by clicking on the "Add..." command.

**Note:** If you are making a connection with another PC, you will probably need to select the "Local echo" and "Auto linefeed" options in the Terminal Settings dialog box.

3. Check that both BitCom and the remote computer are using the same communication settings. Most PCs and PC-based bulletin boards use the setting N81 – [parity](#) set to None, [data bits](#) set to 8 and [stop bits](#) set to 1. Most online services and mainframe computers use the setting E71 – [parity](#) set to Even, [data bits](#) set to 7 and [stop bits](#) set to 1.

If you are calling another PC, make sure that it is in answer mode. To place BitCom in answer mode, choose "Auto Answer" from the Action menu. Bulletin boards, online services and mainframes are usually ready to answer calls.

4. Dial the remote computer.  
From the Phone Book dialog box, click on "Dial." From the BitCom window, click on the "Dial" button in the toolbar and then click on the "Dial" button in the Dial dialog box that appears.

When your modem has made a connection with the remote computer, the lower-left status bar will display "Online."

If you connected to a [BBS](#) or an online service, a message will appear on your screen. If you have made a connection with another PC running BitCom or another communication program, you can start typing.

### Answering a Call

The following shows you how to make a connection by placing BitCom in answer mode. Once BitCom is in Answer Mode, it will answer incoming data calls automatically.

**Note:** When you place BitCom in answer mode, it temporarily disables the Receive Manager.

#### To place BitCom in Answer Mode:

1. Check that your PC and the remote computer are using the same communication settings. In most cases, you can select the Remote record in the phone book. By default, it uses the communication settings N81 – parity set to None, data bits set to 8 and stop bits set to 1.
2. From the Action menu, choose "Auto Answer."  
The message "Waiting for call..." will appear.
3. Wait for the remote computer to call.  
When a remote computer calls, BitCom will automatically answer.

After making a connection, you and the remote system should be able to type messages to each other. If you can see what you type and what the remote system is typing, you have a connection.

**Hint:** BitCom includes a script file that places it in host mode. While in host mode, you and other users can call your PC to exchange files.

---

See Also

[Trouble-shooting a Connection](#)

[Making a Direct Link](#)

[Placing BitCom Into Host Mode](#)

[Transferring Files with a PC](#)

[Transferring Files with an Online Service](#)



## Trouble-shooting a Connection

Once you have made a connection, a few adjustments might be necessary. Following are a few tips on solving some common problems you might encounter while online.

- **No response.**

If you make a connection with an online service or BBS but you see nothing after a few seconds, press [Enter] once or twice. This should prompt a response. If you still get no response, check that the baud rate and the other communication settings are correct.

- **Double characters.**

If everything you type appears twice (lIiikkee tthhiiss), click on the "Parameters" button to open the Edit Parameters dialog box. In the upper-right corner, click on the "Terminal..." button. In the Terminal Settings dialog box, clear the "Local echo" option. Click on "OK" to accept the new settings and click "OK" again to return to your session.

The "Local echo" option tells BitCom to send each character you type to your screen and the remote computer. When communicating with a full-duplex system, the "Local echo" option is unnecessary since the remote computer is already "echoing" each character you type.

- **No characters.**

If you cannot see anything you type, click on the "Parameters" button to open the Edit Parameters dialog box. In the upper-right corner, click on "Terminal..." In the Terminal Settings dialog box, select the "Local echo" option. Click on "OK" to accept the new settings and click "OK" again to return to your session.

The "Local echo" option tells BitCom to send each character you type to your screen and the remote computer. When communicating with a half-duplex system, the "Local echo" option is necessary, since the remote computer is not "echoing" each character you type.

- **The cursor moves to the beginning of the same line or text on screen is doubled-spaced.**

If the cursor moves to the beginning of the same line when you press [Enter], or if the text appears doubled-spaced, click on the "Parameters" button to open the Edit Parameters dialog box, click on "Terminal" and then click on the "Auto linefeed" option. Click on "OK" to accept the new settings and return to your session.

- **"Garbage" on screen.**

If you see gibberish on your screen, check that the port settings are correct. They should match those of the remote system. If you are using N81 (parity set to None, data bits set to 8 and stop bits set to 1), try using E71 (parity set to Even, data bits set to 7 and stop bits set to 1). Likewise, if you are using E71, try using N81. You can change these settings either from the communications port area of the status bar, or by opening the Edit Parameters dialog box.

If you still see gibberish on your screen, check that you are using the correct terminal emulation setting. If you are not using the correct terminal emulation, BitCom will not be able to translate your keyboard characters correctly, nor will it be able to interrupt the characters sent from the host computer.

If you still see garbage, try lowering the baud rate. If this does not work, you probably have a bad connection and the garbled characters you see are caused by line noise. Try waiting a few minutes and then call back.

---

### See Also

[Making a Direct Link](#)  
[Making a Connection](#)

## Making a Direct Link

You do not have to use a telephone line to make a connection with another computer. You can also connect your computer to another with a null-modem cable.

Connecting two computers with a null-modem cable has two advantages: First, you can transfer data at a much higher speed, and second, the connecting line will be free of "noise."

After you have a direct link, you can transfer files as if you were connected over telephone lines. We suggest using the Zmodem protocol to transfer files.

### To make a direct link:

1. Connect your computer to another using a null-modem cable.
2. Change the COM port setting to that of the serial port you connected the null-modem cable to.
3. Choose matching communication parameters.  
We suggest using no parity, 8 data bits and 1 stop bit.
4. Set the baud rate to the highest supported speed.  
When using Xmodem, Ymodem or Kermit, the maximum direct-link baud rate is 19,200. Zmodem supports a transfer rate of 38,400.

**Note:** Speeds above 19,200 might be unreliable on slow machines.

5. Select the "Local echo" and "Auto linefeed" options in the Terminal Settings dialog box.  
You can now begin transferring files between the two computers.

If you can type messages to each other and no "garbage" appears on the screen, you have a good connection.

---

### See Also

[Making a Connection](#)

[Trouble-shooting a Connection](#)

## Transferring Files with a PC

Just as you can copy files from one disk to another, you can use BitCom to exchange files with a remote system. Sending and receiving files is one of the most useful aspects of telecommunications. BitCom allows you to send and receive spreadsheets, documents and even computer programs from anywhere in the world.

Transferring files between PCs is done in three steps: (1) making a connection with the remote PC, (2) one PC receiving files, and (3) the other PC sending files.

Before you can exchange files, you must have a good connection with the host PC. After you are connected with the other PC, either side can send or receive files.

### To receive a file:

1. Make a connection with the remote PC.  
You must have a good connection before you can exchange files with a remote PC.
2. Choose the "Receive" button in the toolbar.  
You can also choose "Receive File..." from the Action menu. The [Receive File - Select Protocol](#) dialog box will appear.
3. Select a mutually supported protocol.  
Both ends must use the same protocol. If you have not already set the protocol's parameters, click on the "Settings..." command to open the Settings dialog box.  
  
If you want to change the directory that BitCom will save the received files to, use the "Path..." command.
4. Choose "OK."  
If you are using the Ymodem, Zmodem or Kermit protocol, the File Transfer Status dialog box will appear, showing the status of the transfer. These protocols retain the original name of each file you receive.
5. If you are using the ASCII or Xmodem protocol, enter a name in the "Filename" text-entry box of the Receive File dialog box and choose "OK."  
The filename does not have to match that of the received file.

**Note:** The ASCII and Xmodem protocols let you receive only one file at a time.

The File Transfer Status dialog box will appear. When you receive a file, the File Transfer Status dialog box will show the status of the transfer. To stop receiving a file, click on "Cancel."

### To send a file:

1. Check that you have a good connection with the remote PC and that it is ready to receive files.  
The Status area should display "Online."
2. Choose the "Send File" button in the toolbar.  
You can also choose the "Send File..." command from the Action menu. The [Send File - Select Protocol](#) dialog box will appear.
3. Select a mutually supported protocol.  
When possible, use the Zmodem protocol.
4. Click on "OK."  
The [Send File](#) dialog box will appear.
5. In the "Files" list box, select one or more files to send.  
You can use the "Directories" list box to choose files from another directory or drive. To select more than one record at a time, hold down the [CtI] key and click on the records you want to add.
6. Click on "Select."  
The files will appear in the "Select files" list box. You can use the "Remove" button to deselect files. If

you are using the Xmodem or ASCII protocol, you can send only one file at a time.

**Note:** If you are using the Xmodem or ASCII protocol, you can select only one file.

7. Click on "Send."  
The File Transfer Status dialog box will show the status of the transmission. If you want to stop sending a file, choose "Cancel."

---

#### See Also

[Choosing a File-Transfer Protocol](#)  
[Transferring Files with an Online Service](#)  
[Making a Connection](#)  
[Trouble-shooting a Connection](#)

## Transferring Files with an Online Service

How you send (upload) and receive (download) files varies from one online service to another. The following instructions, however, will give you some general guidelines.

### To receive (download) a file from an online service:

1. Make a connection with the host system and log on.
2. Ask the host to start sending (downloading) a file.  
How you ask the host will vary with each online service. In most online services and BBSs, you follow menu-driven instructions.

**Note:** If the file-transfer protocol is set to Zmodem with the "Auto Downloading" option enabled, BitCom might automatically begin receiving files.

3. Choose the "Receive File" button in the toolbar.  
The Receive File - Select Protocol dialog box will appear.

Before receiving the file(s), you can use the "Path..." command to change the directory that BitCom will save the received files to.

4. Select a protocol.  
If you are using Kermit, Ymodem or Zmodem, the File Transfer Status dialog box will appear, showing the status of the transfer. Although these protocols retain the original name of each file you receive, some online services require that you enter a filename. If you want to stop receiving a file, click on "Cancel."

5. If you are using the ASCII or Xmodem protocol, you must enter a filename in the "Filename" text-entry box.

The filename you enter does not have to match that of the files you are receiving.

**Note:** The ASCII and Xmodem protocols let you receive only one file at a time.

The File Transfer Status dialog box will appear, showing the status of the transfer. If you want to stop receiving a file, click on "Cancel."

### To send (upload) a file to an online service:

1. Make a connection with the host system and log on.
2. Ask the host to stand by to receive a file.  
How you ask the host will vary with each online service. In most online services and BBSs, you follow menu-driven instructions.
3. Choose the "Send File" button in the toolbar.  
You can also choose "Send File..." from the Action menu. The Send File - Select Protocol dialog box will appear.
4. Select a mutually supported protocol.  
When possible, use the Zmodem protocol.
5. Choose "OK."  
The Send File dialog box will appear.
6. In the "Files" list box, select one or more files to send.  
You can use the "Directories" list box to choose files from another directory or drive. To select more than one record at a time, hold down the [Ctrl] key and click on the records you want to add.

7. Choose the "Select" button.  
The files will appear in the "Select files" list box. You can use the "Remove" button to deselect files.

**Note:** If you are using the Xmodem or ASCII protocol, you can select only one file.

8. Choose the "Send" button.  
The File Transfer Status dialog box will show the status of the transmission. If you want to stop

sending a file, click on "Cancel."

---

See Also

[Choosing a File-Transfer Protocol](#)

[Transferring Files with a PC](#)

[Making a Connection](#)

[Trouble-shooting a Connection](#)

## Choosing a File-Transfer Protocol

To exchange files with another computer, you must use a file-transfer protocol. Basically, a protocol is a set of rules or conventions to ensure that data is exchanged without errors. Before you can exchange files with another system, both sides must agree to use the same file-transfer protocol. BitCom supports the ASCII, Xmodem, Ymodem, Zmodem and the Kermit protocols.

Choosing a protocol depends primarily on the system to which you are connected. If you are unsure which protocol to use, check with the host system. The following are some general guidelines for choosing a protocol:

- Both sides must use the same file-transfer protocol.
- When possible, use the Zmodem protocol. It shares all the features of Xmodem and Ymodem, and adds a few new features, including crash recovery, automatic downloading and a "streaming" file-transfer method.
- If you are transferring files with a mainframe computer, use the Kermit protocol. It allows you to transfer binary, 8-bit data (such as formatted documents, computer programs and graphics) with a 7-bit, mainframe system.
- If the host system does not support Zmodem, use Ymodem.
- If you make an error-free connection (you and the remote system are using an error-correcting modem), choose Ymodem-G for faster file transfers.

---

### See Also

[Transferring Files with a PC](#)

[Transferring Files with an Online Service](#)

[Making a Connection](#)

## Placing BitCom into Chat Mode

After BitCom establishes a good connection or session with a remote user, BitCom's Chat Mode separates messages into a host dialog window and a remote user dialog window. This feature cleans up the displays at the host and/or remote computer because it prevents the host and remote users from overwriting each other's messages on the display when they are typing at the same time during a session. If you are using BitCom to dial a host computer, Chat Mode will separate host messages into a host dialog window, and separate remote messages into a remote dialog window. Without this feature, you would have to wait for member agreement to finish his or her message before sending yours, and vice versa.

If BitCom is in the Host Mode, the host or remote user can switch to Chat Mode. BitCom will ask if the remote computer can support ANSI. If so, BitCom will split the screen into two dialog windows on both the host and remote computer. One dialog window for the remote computer messages and the other for the host computer messages. If the remote computer does not support ANSI, only the BitCom host will have its screen split.

### To place BitCom in Chat Mode during a Session:

1. Click on Action in the BitCom window.
2. Select Chat Mode Start in the drop-list.
3. Hit *CTRL-C* to quit Chat Mode.

### To place BitCom in Chat Mode while in BitCom's Host Mode:

1. Choose Chat from the remote user's menu.
2. Select "Yes", if the remote computer supports ANSI.
3. Hit *CTRL-C* to quit Chat Mode.

---

[See Also](#)

[Configuring Chat Mode](#)



## Configuring Chat Mode

During a connection or session, BitCom provides two options that affect the operation of the Chat Mode. In the first option, a line of text is sent to the destination computer after a carriage return is pressed. While in the second option, each keystroke is sent to the destination computer as it is being pressed.

### To configure Chat Mode:

1. Click on Settings in the BitCom Windows.
2. Select Display from the drop list.
3. Select the configuration for Chat Mode.
4. Click OK.

---

[See Also](#)

[Placing BitCom into Chat Mode](#)

## Placing BitCom Into Host Mode

BitCom's host mode lets callers exchange files with your system while you are away from your desk. When a caller makes a data connection, he or she will be greeted with a welcome message, asked for a password, and then asked whether he or she wants to send or receive files.

**Note:** If the Receive Manager's answer mode is set up to answer data calls, it will automatically place BitCom into host mode when it receives a data call. Thus, you do not need to place BitCom in host mode; the Receive Manager will automatically do it for you. While BitCom is in host mode, the Receive Manager will be unable to receive faxes or voice messages.

### To place BitCom in host mode:

- Choose the "Host" Quick Dial button.  
BitCom will run the REMOTE.SCP file and place itself in host mode. The Auto Answer dialog box will appear.

You can use other Windows programs (except communication programs) while BitCom runs in the background.

---

### See Also

[Calling Host Mode and Transferring Files](#)

[Password Protection](#)

[Making a Connection](#)

[Changing Host Mode Settings](#)

[User Management](#)

[Viewing the Log](#)

## Changing Host Mode Settings

**Host Mode** settings can be changed to meet various communication configurations. In the Host Mode Settings dialog window, the Communication section contains the field related to the COM port configuration. In addition, the welcome message that is displayed when a remote user logs into the host can be modified in this dialog box, as well. If you require a remote user to enter a password before logging into the host, make sure that you have selected, "**Enable Password Protection.**"

### To change the Host Mode settings:

1. Click on the Host menu option in BitCom.
2. Click on Settings.
3. Modify the necessary fields in the dialog box.
4. Click OK, to save the settings.

---

### See Also

[Calling Host Mode and Transferring Files](#)  
[Password Protection](#)  
[Making a Connection](#)  
[User Management](#)  
[Viewing the Log](#)

## User Management

If "**Enable Password Protection**" is enabled in the Host Settings dialog box, BitCom lets you define User Accounts with passwords that each user enters before being granted access to the BitCom host. Each User Account consist of the user's first and last name, and a password which consists of one or more alphanumeric characters. You can also delete or edit a User Account.

To add, delete or edit a User Account:

1. Click on Host menu option in BitCom.
2. Click on Management.
3. Enter the user's first and last name, and then the user's password.
4. Click OK, when you're finished.

BitCom is pre-configured with a user account using the following information (case insensitive):

First Name: first

Last Name: last

Password: word

---

### See Also

[Calling Host Mode and Transferring Files](#)

[Password Protection](#)

[Making a Connection](#)

[Changing Host Mode Settings](#)

[Viewing the Log](#)

**Adding or Editing a User Account**

To add or edit a user account, fill in the first and last name, and the password of the remote user calling into the BitCom host, and click OK when you're finished.

**Deleting a User Account**

Select the user account that you wish to delete, then select this option.

The **User(s) List** field displays all the users who currently have access to the BitCom host.

## Viewing The Log

View Log displays the history of users who either successfully logged in or unsuccessfully logged in to the BitCom host. The information that you will find in a log entry is the time, date, username, and status of the host-to-remote connection.

### To display the log of log-in activity:

1. Click on Host menu option in BitCom.
2. Click on View Log
3. Use the elevator box to scroll the entries, if the scroll area is full.
4. Click OK, when you're finished.

---

### See Also

[Calling Host Mode and Transferring Files](#)

[Password Protection](#)

[Making a Connection](#)

[Changing Host Mode Settings](#)

[User Management](#)



## Calling Host Mode and Transferring Files

To call BitCom, a remote user must use the following settings: no parity, 8 data bits, and 1 stop bit. These are the most common data communication settings.

BitCom's host mode uses the same communication settings as the Remote phone book record, which is in BitCom's default phone book. When you run the REMOTE.SCP script file, it will open the Remote record and use its communication settings. If you want to use different communication settings, just change the settings in the Remote phone book record.

After the caller has entered his or her password, a welcome message will appear. The message BitCom displays is contained in the file WELCOME.TXT, which is in the \BFPRO directory. You can use Windows Notepad (or any other text editor) to change this message.

Next, BitCom will then ask whether the caller wants to transfer a file or quit. To transfer a file, the caller can type "FILE" and press [Enter]. BitCom will then ask which protocol to use. BitCom supports Xmodem, Ymodem, Zmodem, and Kermit. Next, BitCom will ask whether the caller wants to [D]ownload (receive) or [U]pload (send) a file.

Callers can send files to and receive files from the BFPRO\XFER\ directory only. If you want certain files available for downloading, place them in the BFPRO\XFER\ directory.

To log off of BitCom, type "BYE". BitCom will then return to remote mode.

---

### See Also

[Placing BitCom Into Host Mode](#)

[Password Protection](#)

[Making a Connection](#)

## Password Protection

To prevent unauthorized users from accessing your system, BitCom's host mode includes its own security system. After a remote user makes a connection, BitCom will ask you to login. BitCom is pre-configured with a user account using the following information:

First Name: first

Last Name: last

Password: word

You can add/remove/change user information with the Host/Management menu, which will bring up the [User Management](#) dialog box. Passwords are not case-sensitive. If BitCom does not find a match after the third attempt, the user will see "BAD PASSWORD" and be disconnected.

---

### See Also

[Placing BitCom Into Host Mode](#)

[Calling Host Mode and Transferring Files](#)

[Making a Connection](#)

## Using Terminal Emulation

In general, the only time you need to use [terminal emulation](#) is if the host specifically instructs you to.

Terminal emulation is usually required only for mainframe systems. Also, many BBSs give you the option of using ANSI (also called ANSI color) terminal emulation to display color and graphics in the terminal screen. Two of the most common types of terminal emulation are ANSI and VT100. Check with the company or department running the system if you are unsure which kind of terminal to emulate.

BitCom emulates the following terminals:

ANSI color/graphics	ANSI.EMU
IBM 3101	3101.EMU
IBM 3708	3708.EMU
IBM 7171	7171.EMU
TeleVideo 920	TVI920.EMU
TeleVideo 920, 925 and 955	TVI9xx.EMU
DEC VT100 with ANSI support	vt100a.EMU
DEC VT100 with ANSI and VT52 support	vt100b.EMU
Wyse 50	WYSE50.EMU
Wyse 60	WYSE60.EMU

### To use terminal emulation:

- If the status bar is displayed, you can choose a terminal emulation setting from the lower-left part of the status bar.
- Edit or add a new phone book record, click on the "Terminal..." command and select the kind of terminal emulation you want BitCom to emulate in the "Terminal emulation" drop-down list box.

When you make a connection with terminal emulation enabled, BitCom will then adjust your system to act like the specified terminal. For example, when you emulate an IBM 3101 terminal, the F1 through F8 keys become PF1 through PF8.

**Note:** If you are using ANSI emulation, you must use the Terminal font. Otherwise BitCom will not correctly display graphic characters and you will see gibberish on your screen.

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[See Also](#)

[Making a Connection](#)

## Using the Phone Book: An Overview

Each record in BitCom's phone book contains all the information necessary to make a connection with another computer – the host system's name and phone number, the communications settings, etc. After you have saved this information, you can then dial and make a connection.

The phone book records are organized in what looks like an electronic index card, complete with alphabetized browsing tabs. To find a record quickly, you can click on the appropriate electronic tab. When you click on one of the tabs, BitCom will open the first record in the group you selected. For example, if you click on the "P-R" tab, BitCom will open the first record in the P-R group, such as "ProLink."

If you have a large phone book list, you can also use the "Search..." command to find a record, which is helpful when you have a long list of records. When you click on this command, BitCom prompts you to enter a Record ID. BitCom then selects the closest match.

---

### See Also

- [Adding a Phone Book Record](#)
- [Editing a Phone Book Record](#)
- [Deleting a Phone Book Record](#)
- [Creating New Phone Books](#)
- [Removing a Phone Book](#)
- [Copying a Phone Book](#)

## Adding a Phone Book Record

Before making a connection with a host computer, BitCom needs to know a little about it – its phone number, its communication settings, its connection speed, etc. BitCom lets you store this information in a phone book record. When you want to make a connection with the host computer, simply choose its phone book record and dial.

Each record contains all the information needed to make a connection. These settings include the following:

- A name, company name and comments.
- One or more phone numbers, including fax and voice numbers.
- Communication settings, such as baud rate, parity, and data and stop bits.
- Terminal emulation setting.
- A default file-transfer protocol.
- A script file to run automatically after connection.
- A custom set of on-screen function keys.

### To create a new phone book record:

1. From the Phone Book menu, choose "Add Record...".  
The Add Record dialog box will appear.

**Hint:** Before adding a record, first select a record that has communication settings similar to the record you are going to create. When you add a new record, it will start with the same basic communication settings as the currently opened record. This lets you quickly add records with similar communication settings.

2. Enter a unique Record ID and phone number, and select the necessary communication settings. Each phone book record must have a unique record ID, a phone number and communication settings that match those of the remote system, such as the number of data bits, parity setting, etc.

Depending on the system you call, the phone book record might also require other settings, such as terminal emulation.

**Hint:** Most **BBSs** and PCs use no parity, 8 data bits and 1 stop bit. Online services and universities typically use even parity, 7 data bits and 1 stop bit.

3. Choose "OK."

You can also add a new record by clicking on the "Add..." command in the Phone Book dialog box. Another way to add a record is by choosing "Save Parameters As..." from the Settings menu.

---

### See Also

[Editing a Phone Book Record](#)  
[Deleting a Phone Book Record](#)  
[Creating New Phone Books](#)  
[Removing a Phone Book](#)  
[Copying a Phone Book](#)

## Editing a Phone Book Record

BitCom gives you several ways to edit the parameters of your phone book records. From BitCom's phone book, you can click on "Edit..." to open the [Edit Record](#) dialog box. You can also click on one of the opened record's status areas on the right. (A status area is where the mouse pointer changes from an arrow to a small hand.) From the Edit Record dialog box, you can change any of the phone book record's settings.

From BitCom's toolbar, you can click on the "Edit" button. This opens the [Edit Parameters](#) dialog box. You can also select "Edit Parameters..." from the Settings menu.

You can also change many of the parameters from the status bar at the bottom of the screen. With a click of your mouse, you can change the baud rate, parity, data bits, stop bits, terminal emulation setting and COM port. To save your changes, choose "Save Parameters" from the Settings menu.

---

### See Also

- [Adding a Phone Book Record](#)
- [Deleting a Phone Book Record](#)
- [Creating New Phone Books](#)
- [Removing a Phone Book](#)
- [Copying a Phone Book](#)

## Deleting a Phone Book Record

Removing a phone book record is straightforward. Open the phone book, select the record you want to delete, and choose "Delete..." BitCom will ask whether you are sure you want to delete the record. Choose "Yes," and BitCom will delete the record.

---

### See Also

[Adding a Phone Book Record](#)

[Editing a Phone Book Record](#)

[Creating New Phone Books](#)

[Removing a Phone Book](#)

[Copying a Phone Book](#)

## Creating New Phone Books

To help you further organize your records, you can create more than one phone book. For example, you can create a phone book for work and another for home. You can also use a phone book that is shared over a network.

### To create a new phone book:

1. From the Phone Book menu, choose "Select Phone Book...".  
The Select Phone Book dialog box will appear.
2. Choose the "Add..." button.  
The Add Phone Book dialog box will appear.
3. Enter the name of the new phone book in the "Phone Book" text entry box.  
You can enter up to 16 characters.
4. In the "Filename" text-entry box, enter or select the file to which BitCom will save the phone book.  
You must use a valid DOS [filename](#) with the DBF extension.

If you copied a phone book file to your disk or if you want to use a phone book file that is shared over a network, enter its filename. For example, say you copied a friend's phone book file called BOOK.DBF and saved it on your hard disk in the directory C:\BFPRO\DATA. You would then enter C:\BFPRO\DATA\BOOK.DBF. BitCom's phone book files are in the dBASE III format and are shared with BitWare.

5. Choose "OK."  
The Select Phone Book dialog box will reappear with the name of the new phone book in the Phone Books list box.
6. Select the new phone book from the Phone Books list box and choose "OK."  
If the new phone book file does not exist, BitCom will ask whether you want to create the file.  
  
If the phone book file already exists, the Phone Book dialog box will appear.
7. Choose "Yes" to continue.  
The Phone Book dialog box will appear.
8. Choose "OK."  
You will see the name of your new phone book in the "Phone Book" area of the Status Bar.

---

### See Also

- [Adding a Phone Book Record](#)
- [Editing a Phone Book Record](#)
- [Deleting a Phone Book Record](#)
- [Removing a Phone Book](#)
- [Copying a Phone Book](#)



## Removing a Phone Book

When you create a phone book, you create a dBASE file to which your records are saved. You can remove the name of the phone book from the "Phone Books" list box in the Select Phone Book dialog box, which appears when you choose the "Select Phone Book..." command. You cannot, however, remove the file the phone book records are saved to. This arrangement is designed to allow you to remove a phone book that is shared over a network without deleting the actual phone book file.

### To remove a phone book:

1. From the Phone Book menu, choose "Select Phone Book..."  
The Select Phone Book dialog box will appear.
2. Select a phone book to delete.  
**Note:** You cannot delete the currently opened phone book.
3. Choose the "Remove" button.  
BitCom will ask whether you want to delete the phone book.
4. Choose "Yes."  
BitCom will remove the phone book name from the "Phone Books" list box.

---

### See Also

- [Adding a Phone Book Record](#)
- [Editing a Phone Book Record](#)
- [Deleting a Phone Book Record](#)
- [Creating New Phone Books](#)
- [Copying a Phone Book](#)

## Copying a Phone Book

BitCom lets you copy your currently opened phone book. This feature is useful for backing up your phone book records.

### To copy your phone book:

1. From the Phone Book menu, choose "Select Phone Book...".  
The Select Phone Book dialog box will appear.
2. In the Select Phone Book dialog box, select the phone book file you want to copy.
3. Choose the "Copy..." button.  
The Copy Phone Book dialog box will appear. The FROM: section of the dialog box shows the name and filename of the selected phone book.
4. In the TO: section, you enter a phone book name, a filename and a destination.
5. Choose "OK."

---

### See Also

[Adding a Phone Book Record](#)  
[Editing a Phone Book Record](#)  
[Deleting a Phone Book Record](#)  
[Creating New Phone Books](#)  
[Removing a Phone Book](#)

## Using the Quick Dial Keys

The Quick Dial keys let you automatically dial and log on to your favorite online services with just a click of your mouse. The Quick Dial keys are initially set up to dial MCI™ Mail, CompuServe™, EasyLink™, Dow Jones™ News/Retrieval™, GENie™, and DELPHI™.

When you choose a Quick Dial key, BitCom does the following:

- Selects the corresponding phone book record.  
For example, if you click on "CompuSer" button, BitCom would automatically open the CompuServe record.
- Dials the online service using the phone number in the corresponding phone book record.
- Automatically logs you on to the online service by entering your user ID and password.

Before you can use a Quick Dial key, you must do the following:

1. If the corresponding phone book record does not have an 800 number, enter the online service's local phone number.  
CompuServe, DowJones, and DELPHI do not have 800 numbers, but MCI, GENie, and EasyLink do.
2. In the corresponding script file, enter your user ID and password.  
To see which script file is associated with a Quick Dial key, click on the "QKeys" button or choose "Quick Dial Keys..." from the Settings menu. In the Command text-entry box, you will see the script file associated with each Quick Dial key.

After determining the name of the script file, close the Quick Dial Keys dialog box and choose "Script Editor..." from the Script menu. In the Open File dialog box, select the script file you want to edit and then choose "OK." BitCom will open the script file with Windows Notepad. In the script file, enter your user ID and password. Next, save your changes and close Notepad. The Quick Dial key is now ready to use.

For more on editing script files, see [Script Reference](#).

---

### See Also

[Creating Function Keys](#)  
[Displaying Quick Dial Keys and Function Keys](#)  
[Creating a Log-on Script File](#)  
[Script Reference](#)

## Creating Function Keys

BitCom's function keys are programmable on-screen buttons that let you reduce almost any routine communication task to a single key stroke or a click of your mouse. For example, you can use BitCom's function keys to open your E-mail, join a forum, get stock quotes from Wall Street, etc.

You can create a custom set of function keys for each system you call. After you make a connection, the function keys you created for the system will automatically appear, temporarily replacing the Quick Dial keys. (You can assign a different set of function keys to each phone book record.) After you hang up, the Quick Dial keys will automatically reappear.

For example, you could choose the Quick Dial key "Compuserv" to call the online service CompuServe.™ After making a connection, the function keys you created for the CompuServe phone book record will automatically appear. When you log off, the Quick Dial keys will reappear.

This is how function keys work: For each key, you can assign a string of text, a script command, or a script file. Then when you choose a defined key, BitCom will send the text, execute the command, or invoke the script file that you assigned to it.

### To define one or more function keys:

1. Select the phone book record for which you want to create the function keys.  
For example, if you want to create function keys for CompuServe, you would select CompuServe's phone book record.
2. Click on the "Function keys" icon in the toolbar.  
You can also click on the "Function Key..." command button in the Edit Record dialog box. This will open the Function Keys dialog box.

If you want to reuse the function keys you created in other phone book records, open the "Filename" drop-down list box, select one of the previously saved function key files, and click on the "Open" command button. The function key for that file will appear.

3. In the "Key" text-entry box, enter a key combination.  
A key combination can be any function key (F1 - F12) or a combination of the [Alt] or [Ctl] keys with almost any other letter (e.g., [Ctl-L]). (You cannot use a number.) The following are valid keys and key combinations:

Ctl-A through Ctl-Z  
Alt-A through Alt-Z  
F1 through F12

If you use terminal emulation, be careful not to assign a key that has a special meaning to the terminal you are emulating. For example, [F1] on the VT100 terminal is the Gold key.

**Note:** Avoid using special Windows key combinations (e.g., [Alt-F4], which closes an application) or the key shortcuts on the BitCom menu bar. Windows and Windows applications use key combinations that begin with the [Alt] key. To avoid most conflicts, use combinations that begin with the [Ctl] key.

4. In the "Label" text-entry box, enter a name.  
The number of characters BitCom can display depends on the number of buttons you have defined, whether BitCom is displaying one or two rows of keys, and the size of the BitCom window.
5. In the "Command" text-entry box, you can enter one of the following:
  - Text that you routinely send to the host.

Text you want BitCom to send to the host must be in double quotes. For example, if you were to create a set of function keys for a phone book record for CompuServe, you could enter something like this:

```
"GO MAIL $0D$0A"
```

This command to start CompuServe's electronic-mail service is followed by a carriage return and

a line-feed character. A carriage return is represented by the hexadecimal value "\$0D," and the line-feed character is represented by the value "\$0A." You can enter only one line of text (up to 200 characters, including spaces).

- A script command.

You can enter a single script command. For example, if you want BitCom to send a break signal to the host, enter

```
SBREAK
```

You can enter more than one script command, but they must be separated by a semicolon (for example, SBREAK; CLEAR).

- A script file.

To assign an script file to a key, enter the INVOKE command followed by the name of the script file. For example, you could enter:

```
INVOKE LOGON.SCP
```

When you click on the assigned function key, BitCom will run the LOGON.SCP script file.

6. In the Color list box, choose the color of the key's label.  
You can choose from eight colors.
7. Repeat steps 2 - 6 to define more function keys.  
To define keys seven through twelve, click on the "7-12" option button.
8. Enter a [filename](#) in the "Filename" text-entry box and click on "Save."  
You can enter up to eight characters. BitCom will automatically add the extension ".KEY."
9. Choose "OK."  
You will see the new on-screen function keys in the BitCom window.

---

#### See Also

[Displaying Quick Dial Keys and Function Keys](#)  
[Using the Quick Dial Keys](#)  
[Script Reference](#)

## Displaying Quick Dial Keys and Function Keys

BitCom normally displays Quick Dial keys and the function keys in a single row at the bottom of the screen. From the Display Settings dialog box, however, you can choose to display only the keys you have defined, to display one or two rows of keys, or to hide them altogether.

To open the Display Settings dialog box, choose "Display..." from the Settings menu.

The "Show only 1 row" option tells BitCom to display the Quick Dial keys and the function keys in one row. If the keys appear crowded, you can clear this option, and BitCom will display the keys in two rows. The "Show only defined" option tells BitCom to display only the keys that you have defined. The "Show key names" option tells BitCom to display each key's label and key assignment.

---

### See Also

[Creating Function Keys](#)

[Using the Quick Dial Keys](#)

## Capturing Data: An Overview

BitCom makes it easy to "capture" the text you see on your screen to a file or your printer. Capturing data can reduce the time you spend online. Instead of reading data as it appears on your screen, you read it later at your leisure. Capturing data is also sometimes the only way to transfer data from one computer to another.

BitCom can capture data to a file, to your printer or both.

---

### See Also

[Capturing Data to a File](#)

[Capturing Data to Your Printer](#)

[Viewing Captured Files](#)

[Printing Captured Files](#)

## Capturing Data to a File

BitCom can save the text that appears on your screen to a file. By default, BitCom saves captured files in the Capture Directory. You can later view captured files using the "View File" command from the toolbar.

### To capture data to a file:

1. Select the "Capture File Start..." command from the Action menu.  
You can also click on the "Capture file" area of the Status Bar. The Capture File Start dialog box will appear.

2. Enter a filename in the "Filename" text-entry box.  
Enter a new filename or choose an existing file.

When the "Replace" option is selected, BitCom will replace the data in the file with the newly captured data, and you will lose the data in the existing file. If the "Append" option is selected, BitCom will add the captured data to the end of the existing file.

3. Select a capture mode.  
BitCom has three ways to capture data – Normal, Raw and Screen.

"Normal" records everything you see on screen, ignoring the control codes and escape sequences. These are the special codes that control the position of the cursor and the text.

"Raw" records all data that you receive from the host, including control codes and escape sequences. This is useful for debugging a connection.

"Screen" records data as it appears on your screen, but not in the exact order it is received. This compensates for special codes that control the movement of the cursor.

4. Select where you want to start capturing data.  
There are three choices:

"Here" saves all new data that appears on your screen to a file. BitCom will not save data that is already on your screen.

"Top of the scroll buffer" saves, in addition to new data, all the data that is already in your scroll buffer. This option is useful for saving data that has already scrolled off your screen.

"Top of screen" saves all new data and all the data that is on your screen.

5. Choose "OK."  
BitCom will start capturing data to the specified file.

To stop capturing data, open the Action menu and select the "Capture File Stop" command. You can also stop capturing data from the "Capture file" area of the status bar.

---

### See Also

[Capturing Data to Your Printer](#)  
[Viewing Captured Files](#)  
[Printing Captured Files](#)



## Capturing Data to a Printer

Capturing data to your printer works much the same as capturing data to a file, except that BitCom sends data directly to your printer.

Before printing, you might want to check the page setup by choosing the "Page Setup..." command from the File menu.

### To capture to your printer:

1. From the Action menu, choose "Print Start..."  
You can also select the "Print" area of the status bar to start print capture. The Print Start dialog box will appear.
2. Select one of the following options:  
"Here" prints all new data that appears on your screen. BitCom does not print the data currently on your screen.  
"Top of scroll buffer" prints all new data and the data in your scroll buffer.  
"Top of screen" prints all new data and all the data on your screen.
3. Choose "OK."  
BitCom will now print the captured data.

To stop sending data to your printer, choose the Print Stop command from the Action menu. You can also stop Print Capture from the Print area of the Status Bar.

**Note:** BitCom will start printing when it has stored a page or more of information. BitCom will finish printing when you turn off Print Capture.

---

### See Also

[Capturing Data to a File](#)  
[Viewing Captured Files](#)  
[Printing Captured Files](#)

## Viewing Captured Files

BitCom lets you view and print files you captured data to. These files are text-only and contain no formatting characters.

BitCom can view and print text files only. It cannot open formatted documents that were prepared in a word processor.

### To view a captured file:

1. Choose the "View File" button in the toolbar.  
You can also choose the "View File..." command from the File menu. The View File dialog box will appear.
2. Select a file to view.  
To view the default captured file, click on "View Capture File." The current capture file will appear in the Filename text-entry box.
3. Choose "OK."  
BitCom will then open Windows' Notepad with the captured file. You can now read, edit, rename or print the file.

**Note:** You can open more than one captured file at a time, so you can cut and paste between them.

---

### See Also

[Capturing Data to a File](#)  
[Capturing Data to Your Printer](#)  
[Printing Captured Files](#)

## Printing Captured Files

BitCom lets you print captured files. Before doing so, however, you can change the layout of the print page.

### To print a file:

1. From the File menu, choose "Print File...".  
The Print File dialog box will appear.
2. Select a file to print.  
To print the default captured file, click on Print Capture File. The default captured file will appear in the "Filename" text-entry box.

**Note:** The captured file must be text-only. If you captured in Raw mode, the file might not print.

3. Choose "OK."  
BitCom will print the file.

---

### See Also

[Capturing Data to a File](#)  
[Capturing Data to Your Printer](#)  
[Viewing Captured Files](#)

## Using the Windows Clipboard:An Overview

One of the most useful aspects of BitCom for Windows is that you can move text to and from the Terminal Screen using the Windows [Clipboard](#). For example, you can copy a portion of a letter you received from your E-mail to a letter you are composing in Windows Write. You can also copy text from another Windows application and paste it into BitCom. For example, you can copy a portion of a report you are writing in Microsoft's Word for Windows and paste it into the Terminal Screen, where (if connected) BitCom will send it to the host.

---

### See Also

[Moving Text to the Terminal Screen](#)

[Moving Text from the Terminal Screen](#)

## Moving Text to the Terminal Screen

BitCom lets you paste text from the Clipboard to the Terminal Screen, where BitCom will send it to the remote system.

### To move text from the Clipboard to BitCom:

1. Switch to or open the application you want to copy text from.
2. Select the text you want to copy.
3. From the Edit menu, choose "Copy."  
You can also hold down the [Ctl] and press [INSERT] to copy text.
4. Switch back to BitCom.
5. From the Edit menu, choose "Paste to Host."  
You can also hold down the [Shift] key and press [Insert] to paste text.

If you want to append the capture file, you can use the "Paste to Capture File" command to copy the text to the captured file. BitCom will append the text to the end of the captured file.

The text pasted into BitCom appears in the Terminal Screen and (if BitCom is connected) will be sent to the host. The pasted text will be in the same font and point size as the Terminal Screen text, which you can change from the Display Settings dialog box.

---

### See Also

[Moving Text from the Terminal Screen](#)

## Moving Text from the Terminal Screen

Like other Windows applications, you can copy text from the Terminal Screen and paste it into other Windows applications.

### To move text from BitCom to another Windows application:

1. Select the text you want to move.
2. Choose "Copy" from the Edit menu.  
You can also hold down the [Ctl] key and press [Insert] to copy text.
3. Switch to or open the application you want to paste text to.
4. In the application you are pasting to, choose "Paste" from the Edit menu.  
You can also hold down the [Shift] key and press [Insert] to paste text. The text you copied from BitCom will appear in the opened application.

---

[See Also](#)

[Moving Text to the Terminal Screen](#)

## Searching for Text

BitCom lets you find a word or phrase with its "Search..." command. BitCom will search the scroll buffer for the word or phrase you specify and then highlight the first match. You can search for words that have the right combination of upper-case and lower-case letters, or you can ignore case.

### To search for text:

1. Choose the "Search" button in the toolbar.  
You can also choose "Search..." from the Edit menu. The Search dialog box will appear.
2. Enter the word or phrase you want BitCom to search for.  
If you want BitCom to ignore the case of the characters, select the "Ignore case" option.
3. Choose the "Search" button.  
Starting from the top of the scroll buffer, BitCom will highlight the first match it finds.
4. To find the next match, choose the "Search" button again.
5. Choose "Cancel" to stop searching.

## Creating a Log-on Script File

Script files are small programs that automate often-repeated communication tasks. Similar to the programming language BASIC and other script languages, these macros tell BitCom to perform certain tasks, such as making a connection, giving a password or downloading a file. If you frequently call pay services such as CompuServe, script files can save you a great deal of time and money.

The simplest script files automatically log you on to an online service or BBS. These script files wait for the host to ask for your user's ID and password and then automatically reply with an ID and password. So you just dial the host system and BitCom takes care of the formalities.

BitCom's directory contains several sample script files for logging on to online services. For example, you can use the file COMSERV.ACT to log on to CompuServe. The names of all script files end with the .SCP extension.

### To create a simple log-on script file:

1. From the Scripts menu, choose "Script Editor..."  
The File Open dialog box will appear.
2. Enter or select the COMSERV.SCP script file and choose "OK."  
The COMSERV.SCP file will appear.
3. Replace the Xs with your user ID and your password.
4. From the File menu, choose "Save."
5. Close Notepad.  
You have just created a script file that will automatically log you on to CompuServe.

BitCom includes several sample script files. As you just saw, you can use these files with only a little editing. Just add your user's name and password in the appropriate places, and the files are ready to use.

---

### See Also

[Logging on with a Script File](#)  
[Script Reference](#)



## Logging on with a Script File

The following will show you how to use the script file you created in the preceding section to log on to CompuServe. The other log-on script files included with BitCom have a similar structure and can be used in the same way. The instructions below assume you have a subscription to CompuServe.

### To log on with the COMSERV.SCP script file:

1. Open BitCom's phone book.  
Either click on the "Phone Book" button in the toolbar or choose "Select Record..." from the Phone Book menu.
2. Select the CompuServe phone book record and choose the "Edit..." button.  
The Edit Record dialog box will appear.
3. Choose the "Startup..." button.  
The Startup dialog box will appear.
4. Select the "COMSERV.SCP" in the "Script file" pull-down list and choose "OK."
5. Choose the "Dial" button.  
BitCom will dial CompuServe. Once it has made a connection, BitCom will automatically enter your user ID and password.

---

### See Also

[Creating a Log-on Script File](#)  
[Script Reference](#)

## dBASE Structure of the Phone Book

Below is the format of BitWare's dBASE-compatible phone book. When using dBASE or a compatible program to create or edit a phone book, follow these guidelines:

- The field names and lengths must be the same as below.
- The phone book file must have the extension `DBF`.
- Use the dBASE naming conventions. You cannot use spaces in any field name. Field names can contain up to 10 letters and numbers, but must start with a letter.
- You cannot remove any field. You can, however, add new fields for further control.
- Leave the fields with the description "*Internal system use only*" blank. These fields will be filled in by BitCom.

<b>Field name</b>	<b>Type</b>	<b>Length</b>	<b>Description/Format</b>
PB_RECID	char	8	The record ID of a phone book entry
PB_LNAME	char	20	Last name
PB_FNAME	char	20	First name
PB_COMPANY	char	50	Company name
PB_TITLE	char	40	Title
PB_ADDRESS	char	80	Address
PB_CITY	char	30	City
PB_STATE	char	30	State
PB_ZIPCODE	char	16	Zip code
PB_COUNTRY	char	30	Country
PB_COMMENT	char	128	Comment
PB_PHFAX	char	40	The phone number string
PB_PHTYP1	char	1	Type of number ( D = Data, F = Fax, V = Voice)
PB_PHLOC1	char	8	Location specification (Home, Work, School, etc.)
PB_PHVOICE	char	40	The phone number string
PB_PHTYP2	char	1	Type of number ( D = Data, F = Fax, V = Voice)
PB_PHLOC2	char	8	Location specification (Home, Work, School, etc.)
PB_PHDATA	char	40	The phone number string
PB_PHTYP3	char	1	Type of number ( D = Data, F = Fax, V = Voice)
PB_PHLOC3	char	8	Location specification (Home, Work, School, etc.)
PB_PHCELL	char	40	The phone number string
PB_PHTYP4	char	1	Type of number ( D = Data, F = Fax, V = Voice)
PB_PHLOC4	char	8	Location specification (Home, Work, School, etc.)
PB_PHNUM5	char	40	The phone number string
PB_PHTYP5	char	1	Type of number ( D = Data, F = Fax, V = Voice)
PB_PHLOC5	char	8	Location specification (Home, Work, School, etc.)
PB_PHNUM6	char	40	The phone number string
PB_PHTYP6	char	1	Type of number ( D = Data, F = Fax, V = Voice)
PB_PHLOC6	char	8	Location specification (Home, Work, School, etc.)
PB_PHNUM7	char	40	The phone number string
PB_PHTYP7	char	1	Type of number ( D = Data, F = Fax, V = Voice)
PB_PHLOC7	char	8	Location specification (Home, Work, School, etc.)
PB_PHNUM8	char	40	The phone number string

PB_PHTYP8	char	1	Type of number ( D = Data, F = Fax, V = Voice)
PB_PHLOC8	char	8	Location specification (Home, Work, School, etc.)
PB_DBAUD	numeric	1	Baud rate (110 ... 19200)
PB_DDATA	numeric	1	Number of data bits (7 or 8)
PB_DPARITY	char	1	Parity (N = none, O = odd, E = even, M = mark, S = space)
PB_DSTOP	numeric	1	Stop Bits (1 or 2)
PB_DFLOW	char	1	Flow control (N = none, X = Xon/Xoff, H = hardware)
PB_DIGNORE	logical	1	Ignore parity (Y = yes, N = no)
PB_DTERM	char	16	Terminal emulation filename (do not include path)
PB_DUPCASE	logical	1	Convert all characters to upper-case (Y = yes, N = no)
PB_DECHO	logical	1	Local echo (Y = yes, N = no)
PB_DLF	logical	1	Auto linefeed (Y = yes, N = no)
PB_DBREAK	numeric	4	Break time in 1/100 of a second
PB_DFT	char	16	File transfer protocol name (e.g., YMODEM or KERMIT)
PB_DFTASC	char	32	<i>Internal system use only</i>
PB_DFTSET	char	32	<i>Internal system use only</i>
PB_DFKEYS	char	16	Function key filename (e.g., FUNCT.KEY)
PB_DACTION	char	16	Startup script filename (e.g., COMPSERV.ACT)
PB_DCONMOD	char	1	Default connection mode (D = direct, C = call, A = auto answer) Used only by the script command DOCOMM
PB_DINPF	logical	1	Input filter (Y = yes, N = no)
PB_DFGROUP	char	34	<i>Internal system use only</i>

## Technical Support

If you have a problem using BitCom and cannot find a solution in [Trouble-shooting](#), please seek help from us using one of the following methods.

1. Using CompuServe: GO CHEYENNE and leave a message in the BitWare section. All messages are answered in one or two business days.
2. Send a fax to Cheyenne Communications's technical support at (510) 490-2939.
3. Call Cheyenne Communications's technical support at (510) 490-9470.

When instructed by our support agents, you can call our 24-hour bulletin board service (BBS), at (510) 490-6637. BitCom should be set to use 8 data bits, 1 stop bit and no parity (81N). Supports up to 14,400 baud rate. This BBS is NOT attended, and should be used only to download/upload files as instructed by our support staff.

Before seeking technical support, run the Modem Detection program and copy down the results.

### To run the Modem Detection program:

1. Click on the Setup icon in the BitWare window.
2. Choose the "Modem..." button.
3. Choose the "Auto Detect..." button.

The Modem Detection program will search for your modem and then detect the kind of modem it is. After it is finished, it will automatically select the correct settings in the Modem Setup dialog box.

4. Choose the "Info..." button.

The Modem Information dialog box will appear.

5. Note the information that appears in the Modem Information dialog box.

If the "Modem Error" dialog box appears, check that your modem is properly installed and turned on. Many laptop or notebook computers use power managers that automatically turn off your modem. If you still get this error after checking your modem, contact your modem's manufacturer.

Cheyenne Software's technical support will also need the following information:

The version of BitWare you are using.

The version number is displayed in BitWare's About dialog box, which you can open by choosing "About..." from the Help menu.

The make and model of your computer.

If you know, the make and model of your modem.

The amount of memory (RAM) in your system.

The versions of DOS and Windows you are using.

The contents of your CONFIG.SYS and AUTOEXEC.BAT files.

These files are located in your root directory (usually C:\).

Cheyenne Software also maintains a 24-hour bulletin board service (BBS), which you can contact at (510) 490-6637. BitCom should be set to use 8 data bits, 1 stop bit and no parity (81N). The supports up to 14,400 baud rate.

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### See Also

[Trouble-shooting](#)  
[Using COM 3 and COM 4](#)

## Trouble-shooting

The following are answers to commonly asked technical questions. Please refer to them before calling Technical Support.

- **After connecting to an online service or BBS, I see nothing on my screen.**  
Press [Enter] once or twice. This should prompt a response. If you still get no response, check that the baud rate and the other communication settings are correct.
- **Everything I type appears twice (Iliikkee tthhiiss).**  
Open the Edit Parameters dialog box, click on "Terminal..." and clear the "Local echo" option. Click on "OK" to accept the new settings and click "OK" again to return to your session.  
  
The "Local echo" option tells BitCom to send each character you type to your screen and the remote computer. When communicating with a full-duplex system, the "Local echo" option is unnecessary since the remote computer is already "echoing" each character you type.
- **I cannot see anything I type.**  
Open the Edit Parameters dialog box, click on "Terminal..." and select the "Local echo" option. Click on "OK" to accept the new settings and click "OK" again to return to your session.  
  
The "Local echo" option tells BitCom to send each character you type to your screen and the remote computer. When communicating with a half-duplex system, the "Local echo" option is necessary since the remote computer is not "echoing" each character you type.
- **The cursor moves to the beginning of the same line or text on your screen is doubled-spaced.**  
If the cursor moves to the beginning of the same line when you press [Enter], or if the text appears doubled-spaced, click on the "Parameters" button to open the Edit Parameters dialog box, click on "Terminal..." and then click on the "Auto linefeed" option. Click on "OK" to accept the new settings and return to your session.
- **After making a connection, I see "garbage" on my screen.**  
If you see gibberish on your screen, check that the port settings are correct. They should match those of the remote system. If you are using N81 (parity set to "None," data bits set to "8" and stop bits set to "1"), try using E71 (parity set to "Even," data bits set to "7" and stop bits set to "1"). Likewise, if you are using "E71," try using "N81." You can change these settings either from the communications port area of the status bar or by opening the Edit Parameters dialog box.  
  
If you are using ANSI (Color) terminal emulation, make sure you are using the "Terminal" font in the Display Settings dialog box.  
  
If you still see gibberish on your screen, check that you are using the correct terminal emulation setting. If you are not using the correct terminal emulation, BitCom will not be able to translate your keyboard characters correctly, nor will it be able to interrupt the characters sent from the host computer.  
  
If you still see garbage, try lowering the baud rate. If this does not work, you probably have a bad connection and the garbled characters you see are caused by line noise. Try calling back after a few minutes.
- **BitCom will not dial long phone numbers.**  
Many modems can dial a maximum of 40 characters. Check your modem's manual for the maximum number of characters it can dial.
- **BitCom redials without waiting for a connection.**  
Clear the "Redial" option in the Modem Settings dialog box or check that the redial time is set to 40 seconds or more.

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### See Also

[Technical Support  
Using COM 3 and COM 4](#)

## Using COM 3 and COM 4

If your modem is using COM 3 or COM 4, Windows might not recognize it, and you will get a message such as "Modem does not exist" or "Modem not found." This usually happens when COM 1 and COM 2 are installed and your modem is using COM 3 or COM 4.

There are two reasons for this: First, COM 1 and COM 3 use IRQ 4, while COM 2 and COM 4 use IRQ 3. That means you have only two IRQ lines for four COM ports. Second, most PCs do not allow two COM ports to share the same IRQ line. Thus, if you are using COM 1, you cannot use COM 3 at the same time – unless COM 3 is configured to another IRQ line or your PC supports IRQ sharing. For example, if your mouse is using COM 1 and your modem is using COM 3, both will try to use IRQ 4, and a conflict might arise.

If you are using an IBM PS/2 with MCA (Micro Channel Architecture) or a computer with the EISA-bus (Extended Industry Standard Architecture) standard, these limitations do not apply. These computers allow devices to share the same IRQ line. The above limitations also do not apply if your external modem is connected to a serial I/O card that supports IRQ-line sharing.

To solve the IRQ conflict, we recommend reassigning COM 3 or COM 4 to a standard IRQ line that is not being used. For example, if your modem is using COM 3 and you configure it to use IRQ 5, this lets you set your mouse to COM 1 without a conflict.

If you are using an internal modem, consult its documentation for instructions on how to change its IRQ line setting. If you are using an external modem, consult the documentation of the I/O card to which it is attached. Changing IRQ settings usually requires you to change jumper switches. (Most modems and I/O cards let you change their IRQ-line setting.)

After you have corrected the IRQ-line conflict, you need to tell Windows. Windows 3.1 makes this easy. From the Control Panel, select Ports and click on the COM port you want to reconfigure. Next, click on "Advanced..." to see the base I/O address and interrupt request line.

Pull down the menus of each of these options and select the correct I/O address and IRQ line. Click on "OK." You must restart Windows for these changes to take effect.

The following are the standard serial port configurations:

<b>Port</b>	<b>Address</b>	<b>IRQ</b>
COM 1	03F8	4
COM 2	02F8	3
COM 3	03E8	4
COM 3 (PS/2)	3220	3
COM 4	02E8	3

If you are using a serial I/O card that allows IRQ sharing, you need to add the following line to the [386Enh] section of your SYSTEM.INI file:

```
COMIrqSharing=TRUE
```

Adding this line alone does not enable your system to share IRQ lines; you must have the proper PC or serial I/O card.

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**See Also**

[Technical Support](#)  
[Trouble-shooting](#)

## How to Select the Modem Connection Type Using the Rockwell RPI Driver

By setting the connection type manually, you can force your modem to attempt only the type of connection that the remote modem can achieve. To Select the Modem Connection Type using a Rockwell RPI Driver supported modem do the following:

1. Under the "Settings" pull-down menu, select "System..." .
2. Verify that the highlighted field in the upper left corner is displayed as "Modem: RPI". If not, click on the down arrow and select "RPI".

Note: Normally the modem autodetection should have selected this during the installation.

3. Click on "OK" to leave the System Settings Menu.
4. Click the "Phonebook" button or choose "Select Record..." under the "Phonebook" pull-down menu.
5. Select the record you wish to edit and click the "Edit..." button.
6. In the Edit Record box, under the "Phone" heading, change the "Type" to the connection type that you prefer for this record (V.42/MNP, V.42bis, MNP5, etc...), then click on the "OK" button to exit.

### RPI Connection Types

V42bis/MNP - Select this option only if you want to force your modem into V.42bis/MNP5 Reliable mode. You can select this option only if the remote modem supports this protocol.

V42bis - Select this option only if you want to force your modem into V.42bis Reliable mode. You can select this option only if the remote modem supports this protocol.

V42 - Select this option only if you want to force your modem into V.42 Reliable mode. You can select this option only if the remote modem supports this protocol.

MNP4 Async - Select this connection type only if you want to force an asynchronous connection with MNP4 Error Correction.

MNP4 Sync - Select this connection type only if you want to force a synchronous connection with MNP4 Error Correction.

MNP5 Async - Select this connection type only if you want to force an asynchronous connection with MNP4 Error Correction and MNP5 Data Compression.

MNP5 Sync - Select this connection type only if you want to force a synchronous connection with MNP4 Error Correction and MNP5 Data Compression.

Direct - Select this option only if you want to force your modem into a standard mode without error correction or data compression.

\*User9 - This connection type is not available for RPI modems.

\*User10 - This connection type is not available for RPI modems.

\*Fax - Select this option if the number is a fax number.

\*Voice - Select this option if the number is a voice number.

\* = These connection types default to V.42bis/MNP5 Reliable Mode.

