INVISIBLE   CONTROL
Remote Control Software For LANs

Version 1.00

License Agreement And Limited Warranty

The programs in this package are copyrighted. By using them, you indicate acceptance of the following terms and conditions. If you do not agree with these terms and conditions, return the programs to the place of purchase; and your money will be refunded.

1. License. You may use the programs on a single local area network, and you may make a reasonable number of copies of the programs for backup purposes.

2. Restrictions. You may not use the programs on more than one local area network at the same time. You may not distribute copies of the programs or documentation to others, or place them into any electronic bulletin board or information retrieval system. You may not modify or reverse engineer the programs.

3. Limited Warranty on Diskettes. If a diskette in this package is defective, Invisible Software will replace it at no charge if the defective diskette is returned to Invisible Software, shipping prepaid, within 90 days of the date of purchase.

4. Limited Warranty on Software. Invisible Software warrants that the programs will operate substantially as described in the documentation. If you report a significant software defect in writing within 90 days of the date of purchase, and Invisible Software is not able to correct the defect, then you may return the programs and documentation to the place of purchase; and your money will be refunded.

5. Disclaimer. IN NO EVENT WILL INVISIBLE SOFTWARE BE LIABLE TO YOU FOR ANY DAMAGES, INCLUDING ANY LOST PROFITS, LOST SAVINGS OR OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PROGRAMS EVEN IF INVISIBLE SOFTWARE OR AN AUTHORIZED REPRESENTATIVE HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, OR FOR ANY CLAIM BY ANY OTHER PARTY. SOME STATES DO NOT ALLOW THE LIMITATION OR EXCLUSION OF LIABILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THIS LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU. This agreement will be governed by the laws of the State of California.

Trademarks

Invisible Control, CACHE/30, Invisible RAM, Invisible RAM 386, Invisible EMS, Invisible Network, Invisible Ethernet, NET/30, and NET/30-EMS are trademarks of Invisible Software, Inc.

IBM, IBM PC, PC/XT, PC AT, PS/2, and Micro Channel are trademarks of International Business Machines Corporation.

Contents

1 What is Invisible Control?

Invisible Control is a software package that provides "remote control" functions on a local area network.

Invisible Control uses the network to send screen images and keystrokes from one computer to another. This allows you to view the screen, and use the keyboard, of other computers.

This chapter covers the following topics:

■ What Invisible Control does for you

■ Hardware requirements

What Invisible Control Does For You

Invisible Control (*IC* for short) has three modes of operation: monitor mode, group broadcast mode, and chat mode.

■ In *monitor mode*, you can view the screen, and use the keyboard, of any other computer in the network. The screen image on the other computer is sent across the network and displayed on your own screen. Similarly, every key you press on your keyboard is sent across the network and entered at the other computer. Thus, you have "remote control" over the other computer.

■ In *group broadcast mode*, the image on your computer screen is sent to many other computers simultaneously. This allows an entire group of users to watch what you are doing on your computer. Group broadcast mode is ideal where you want to demonstrate the use of a program to several other people.

■ In *chat mode*, you have a conversation with another user on the network. Everything you type is displayed on the other user's screen, and everything the other user types is displayed on your screen.

IC works with both text screens and graphics screens, including high-resolution EGA and VGA graphics screens.

In addition to its three main modes of operation, IC includes utilities for sending messages and for configuring IC to meet your exact requirements.

IC is installed on your computer as a TSR (terminate-stay-resident) program. Once installed, it remains in your computer's memory. You activate IC using *hot keys*, special key combinations that invoke IC's functions. Also, IC has a pop-up menu that you can use to invoke functions.

Hardware Requirements

Invisible Control requires a local area network (LAN) with a NetBIOS interface.

IC uses only the NetBIOS functions to communicate on the network. IC does not make use of the network operating system, so it can operate with any network operating system, or even without a network operating system.

What is Invisible Control?

2 Getting Started

The goal of this chapter is to get you started using Invisible Control as quickly as possible. This chapter explains how to install IC on your system, and how to start IC. It also describes a sample IC session that demonstrates the function of IC.

The topics covered are:

- System requirements

- Installing IC on your system

- Sample IC session

- Starting Invisible Control

System Requirements

IC can be used on any PC-compatible computer. You need the following:

- DOS version 3.1 or above.

- A NetBIOS-compatible local area network.

- Any of the standard video systems: monochrome, CGA (color graphics adapter), EGA (enhanced graphics adapter), or VGA (video graphics array).

Optionally, you may also have expanded memory compatible with the Expanded Memory Specification (EMS) 4.0. If you have expanded memory, IC can use it.

Installing IC on Your System

Installing IC is a two-step process. First, you must copy the IC program files onto your system's disk; the disk can be either a local disk, or a file server disk that you access through the network. Second, you must create a configuration file that specifies the exact configuration of IC you want to use.

This chapter describes how to install IC in a default configuration. Chapter 5 describes how to customize the configuration.

Installing on a Hard Disk or File Server

Follow the steps below to install IC on a local hard disk, or on a file

server's disk.

Step 1. Begin by inserting the Invisible Control diskette in drive A:, and then type

    A:INSTALL

The Invisible Control Install/Manager program loads into memory and displays its main menu, as shown in Figure 2-1. The line called **Default Installation** should be highlighted; if it isn't, use the up and down arrow keys to highlight it. Press **Enter**.


```
                                          Invisible Control (IC) 1.00

          IC MANAGEMENT MAIN MENU
       Default Installation
       Copy Files
       Load/Create Configuration File
       Invisible Control Configuration
       Save Configuration File
       Exit from Menu Program




 HELP F1  ACTIVATE Enter  CANCEL Esc  SELECT ↑ ↓ PgUp PgDn Ctrl-PgUp Ctrl-PgDn
```
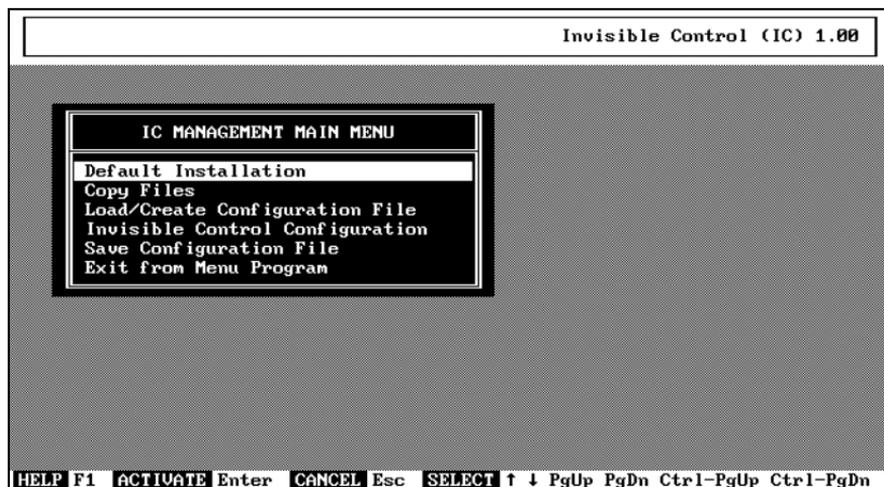
Figure 2-1. The Install/Manager Main Menu

Step 2. The Install/Manager program asks if you want to begin the installation. Press **Enter** to continue.

Step 3. The Install/Manager program will now create a new directory on your hard disk or file server disk, and copy all the files from the Invisible Control diskette into the new directory.

You need to specify both the source and destination directory of the files. First enter the source. The default value is A:\, which is correct if you are installing the program from drive A:. If you are installing from another drive, enter the source drive. Press **Enter** to continue.

Next, enter the destination directory. The default value is C:\IC. If you want to install to a drive other than C:, or if you want to assign the directory a different name, simply type over the destination directory shown on the screen. Press **Enter** to continue.

Setp 4. The remainder of the process is automatic. When installation is complete, press **Enter** one more time to return to DOS.

You may want to modify your DOS PATH command to include the C:\IC directory (or whatever other name you used for the destination directory).

Installing on a Floppy Diskette

If you need to install the Invisible Control software on a floppy diskette, use the following procedure:

Step 1. First install IC on a hard disk or file server disk, as described above.

Step 2. Copy the following files from the hard disk or file server disk onto the floppy diskette:

> **IC.COM**
> **IC.INI**
> **IJOIN.COM**
> **ISEND.COM**

If you intend to run the sample IC session described in the next section, you should also copy MASTER.INI and SLAVE.INI onto the floppy diskette.

Sample IC Session

This section is an example of an IC session. It demonstrates the function of Invisible Control by installing IC on two computer systems, and then having one system take control of the other.

The two computer systems are called the *master system* and the *slave system*. The master system is going to *monitor* the slave system. In other words, the master system will view the slave's screen, and share the slave's keyboard.

Make sure that Invisible Control is installed on both systems, then perform the following steps.

<u>Step 1</u>. At the slave system, start IC by entering the command

    IC   SLAVE.INI

<u>Step 2</u>. At the master system, start IC by entering the command

    IC   MASTER.INI

<u>Step 3</u>. At the master system, press **Alt-M**. This tells IC that you want to monitor another system.

<u>Step 4</u>. Still at the master system, a bar appears at the bottom of the screen, asking you to type the name of the other system. Type **SLAVE** and press **Enter**.

As soon as you press **Enter**, the master's screen changes to an exact copy of the slave's screen. The master can now view everything that happens on the slave.

Also, everything entered at the master's keyboard is sent to the slave. For example, type **DIR** at the master's keyboard. The slave computer displays its disk directory. At the same time, the slave's display is sent to the master computer, so the master can also see the slave's directory.

The master computer now shares control of the slave system. The slave is still functional. You can type at the slave's keyboard, and use the slave computer in the normal way. With Invisible Control, the master

can watch everything you do at the slave.

To stop monitoring the slave, press **Alt-E** at the master computer. This breaks the connection between the master and the slave. The master's original screen is restored, and you can continue to use both computers normally.

This is the end of our sample IC session. Successfully completing this sample session indicates that you have installed IC correctly.

Starting Invisible Control

The command to start Invisible Control in the default configuration is:

    IC

When started, IC registers itself with the network, and then makes itself resident in the computer's memory.

The **IC** command can be typed at the DOS command line, or it can be entered into a batch file. If you enter **IC** in your AUTOEXEC.BAT file, then IC is started automatically whenever you start your computer.

The remainder of this manual describes how to use Invisible Control. Chapter 3 describes all the functions of IC that you can invoke from the computer keyboard. Chapter 4 describes functions that are invoked from the DOS command line. Chapters 5 and 6 tell you how to customize IC to meet your exact requirements. And if you have any difficulty, Chapter 7 describes all the IC error message and tells you what to do if an error occurs.

3 Keyboard Operations

This chapter describes the functions of Invisible Control that can be invoked from the computer keyboard. Chapter 4 describes the IC functions that are invoked from the DOS command line.

The topics covered in this chapter are:

- Invoking functions

- The menu screen

- Monitor mode

- Chat mode

- Group mode

- Resolving hot key conflicts

- Privacy

Invoking Functions

Most of the functions of IC can be invoked in two ways: by a hot key, or by a menu.

A *hot key* is a special key combination that immediately invokes a function in IC. For example, you can press **Alt-C** to chat with another user.

A *menu* is a screen that lists the functions of IC. When you bring the menu onto the screen, you use the cursor keys to select the function you want to perform, and then press **Enter** to start the function.

Both methods of invoking IC yield the same results. The method you use is a matter of personal preference.

Note—If you find that IC's hot keys conflict with the keys used by your application programs, you can change the hot keys. The procedure is described later in this chapter.

The Menu Screen

The menu is a simple way to invoke the functions of IC. It is easy to bring the menu onto the screen:

■ To activate the IC menu, press **Alt-H**. The menu appears on the screen as shown in Figure 3-1.

■ To cancel the IC menu, press **Esc**. The menu disappears, and your original screen returns.

The menu consists of two main areas: a function window on the right, and a user window on the left.
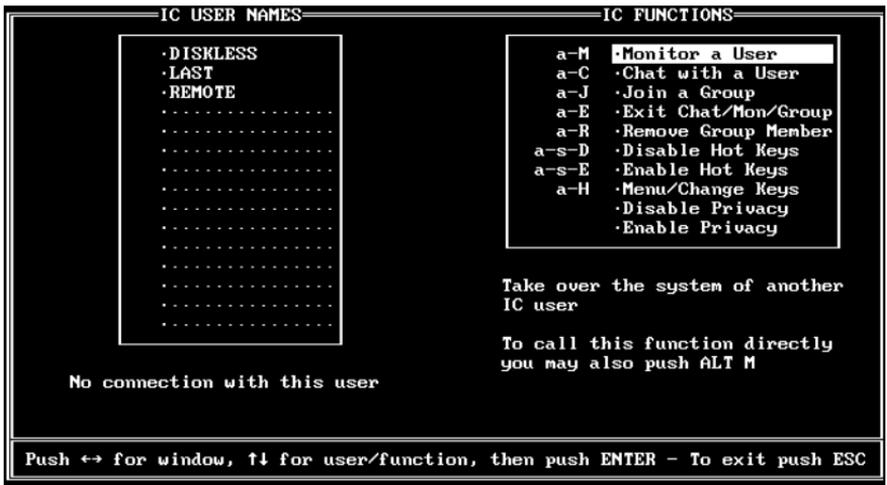
Figure 3-1. Invisible Control Menu Screen

The *function window* lists the various functions that IC can perform. It also lists the hot key for each function. You can invoke the function either by selecting it from the menu, or by pressing the hot key.

The *user window* lists the network users that IC knows about. You can add users to the list using the Install/Manager menu; refer to Chapter 5 for details.

You use the arrow keys to move the cursor on the menu screen. The left and right arrow keys switch between the function and user windows, while the up and down arrow keys scroll the cursor within the window.

To invoke a function, you select both a user and a function, and then press **Enter**. For example, if you want to chat with a user, you would select the user's name from the user window, the **Chat** function from the function window, and then press **Enter**.

Monitor Mode

In *monitor mode*, one user is able to view the screen, and use the keyboard, of another user.

The user who initiates the monitor mode is called the *master*; the other user is called the *slave*. The image on the slave's screen is sent across the network and displayed on the master's screen. Similarly, each keypress on the master's keyboard is sent across the network and entered at the slave's keyboard. Thus, the master can use the slave's computer as if he were physically there.

There are two ways to initiate the monitor mode: by using a hot key, or by using the IC menu.

■ To initiate monitor mode via a hot key, press **Alt-M**. Then type the name of the other (slave) user, and press **Enter**.

■ To initiate monitor mode via the menu, press **Alt-H** to bring up the menu. At the left of the screen, highlight the (slave) user name. At the right of the screen, highlight **Monitor a User**, and press **Enter**.

When you initiate monitor mode, Invisible Control notifies the slave of your monitor request, as shown in Figure 3-2. The slave can accept the monitor request by pressing **F1**, or reject the monitor request by pressing **F10**.

If the slave user accepts the monitor request, IC immediately begins sending the slave's screen image to your computer, and sending your keystrokes to the slave's keyboard. In addition, the slave's screen and keyboard remain functional, so that both users can view the screen image and enter keys.

There are two ways to exit from monitor mode: by a hot key, or by a menu.

■ To exit monitor mode with a hot key, press **Alt-E**. The monitor mode is terminated, and your original screen returns.

■ To exit monitor mode from the menu, press **Alt-H** to bring up the menu. Then select **Exit Chat/Mon/Group**, and press **Enter**.

```
D:\C\GRIP>chkdsk a:

    362496 bytes total disk space
    327680 bytes in 22 user files
     34816 bytes available on disk

    622592 bytes total memory
    421696 bytes free

D:\C\GRIP>




    Monitor request from LANE          Press F1 to Allow, F10 to Refuse
```

Figure 3-2. Slave user can accept or reject monitoring

Chat Mode

Chat mode allows two users to have a conversation across the network. Messages typed by one user are immediately displayed on the other user's screen. The chat can continue for as long as desired.

You can start chat mode either by a hot key or by the menu.

■   To start chat mode with a hot key, press **Alt-C**. Then type the name of the other user, and press **Enter**.

■   To start chat mode from the menu, press **Alt-H** to bring up the menu. At the left of the screen, highlight the other user's name. At the right, highlight **Chat with a user**, and press **Enter**.

When you start chat mode, the other user is notified that you want to chat, as shown in Figure 3-3. The other user can agree to chat by pressing **F1**, or decline to chat by pressing **F10**.

If the other user agrees to chat, then the *chat screen* appears on both computers, as shown in Figure 3-4. Everything you type appears at the bottom of your screen, while everything the other user types appears at the top of your screen.

Figure 3-3. The other user must agree to a chat

When you are finished chatting, there are two ways to exit from chat mode; using a hot key, or using the menu.

■ To exit chat mode with a hot key, press **Alt-E**. The chat mode is terminated, and your original screen returns.

■ To exit chat mode with the menu, press **Alt-H** to bring up the menu. Then select **Exit Chat/Mon/Group**, and press **Enter**.
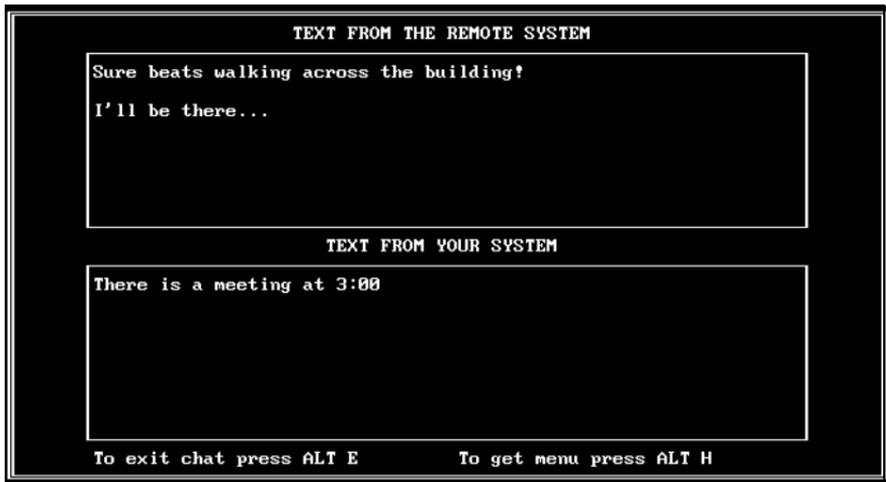

Figure 3-4. The Chat Screen

Group Mode

Group mode provides a way for one user to broadcast his screen image to many different users simultaneously. The user who is sending his screen image to the others is called the *group master*. The users who receive the screen image are called *group members*. A group can have only one master, but it may have many members.

A typical example of where group mode is useful is a classroom situation. In a classroom, the teacher can be the group master, and all the students can be group members. Then all the students can watch what the teacher is doing.

To form a group, each group member needs to *join* the group. There are three ways to join a group:

■   Using a hot key. Begin by pressing **Alt-J**. Then type the name of the group master, and press **Enter**.

■   Using the menu. Begin by pressing **Alt-H** to bring up the menu. At the left of the screen, highlight the name of the group master. At the right of the screen, highlight **Join a Group**, and press **Enter**.

■   Using the **IJOIN** command at the DOS command line. Refer to Chapter 4 for details.

The group master is notified when you attempt to join a group. The group master can allow you into the group by pressing **F1**, or decline to let you in the group by pressing **F10**.

When the group master lets you into the group, you immediately begin seeing the group master's screen. You continue to view the group master's screen until you leave the group.

When you are a group member, there are two ways that you can leave the group.

■   To leave the group with a hot key, press **Alt-E**. The group mode is terminated, and your original screen returns.

■   To leave the group with the menu, press **Alt-H** to bring up the menu. Then select **Exit Chat/Mon/Group**, and press **Enter**.

When you are a group master, you can forcibly remove members from your group, if you wish. There are two methods:

■   Using a hot key, begin by pressing **Alt-R**. Then type the name of the group member, and press **Enter**. The specified group member is removed from your group.

■   Using the menu, begin by pressing **Alt-H** to bring up the menu. Highlight the name of the group member (group members are automatically added to your list of names when they join your group). Then highlight **Remove Group Member**, and press **Enter**. The selected group member is removed from your group.

Resolving Hot Key Conflicts

You may find that some of your application programs use the same key combinations that Invisible Control uses for hot keys. This would create a conflict, since IC and the application program would both be "fighting" for the same keys.

IC provides two mechanisms for resolving conflicts. The first mechanism lets you enable and disable the IC hot keys whenever you want to. This is a convenient way to temporarily resolve conflicts if you occasionally run a program with conflicting keyboard usage.

The second mechanism is more permanent in nature: you can change the hot keys used by IC. For example, you could use **Alt-Shift-M** to initiate chat mode, instead of the usual **Alt-C**. In this way, you can ensure that IC's hot keys do not conflict with the keys used by your application programs.

Disabling and Enabling Hot Keys

You can disable the IC hot keys either by using a hot key, or by using the menu.

■   To use a hot key, press **Alt-Shift-D**. All the IC hot keys are disabled, with two exceptions: the hot key that brings up the menu (**Alt-H**), and the hot key that enables hot keys (**Alt-Shift-E**).

■   To use the menu, press **Alt-H** to bring up the menu. Highlight **Disable Hot Keys**, and then press **Enter**. All the IC hot keys are disabled, with two exceptions: the hot key that brings up the menu (**Alt-H**), and the hot key that enables hot keys (**Alt-Shift-E**).

There are also two methods you can use to enable hot keys:

■   To use a hot key, press **Alt-Shift-E**. All the IC hot keys are enabled.

■   To use the menu, press **Alt-H** to bring up the menu. Highlight **Enable Hot Keys**, and then press **Enter**. All the IC hot keys are enabled.

Changing Hot Keys

You can change the hot key definitions using the Invisible Control menu. The steps are described below.

Step 1: Press **Alt-H** to bring up the menu.

Step 2: Highlight **Menu/Change Keys**, and press **Enter**.

Step 3: Use the cursor keys to select a function.

Step 4: Press the new hot key you want to use for the function.

Step 5: If you want to change additional hot keys, repeat steps 3 and 4.

Step 6: Press **Esc** to exit from the menu.

Note—When you use the menu to change hot key definitions, the new definitions remain in effect only as long as your computer is running.

When you turn off (or reboot) the computer, the new hot key settings are lost. If you want to *permanently* change the hot key definitions, so that the new settings are in effect every time you start IC, you need to use the Install/Manager program. Refer to Chapter 5 for details.

Privacy

Invisible Control allows other users on the network to examine your screen, chat with you, and control your keyboard. Sometimes you may not want other users to do these things. For such occasions, IC has a function that gives you privacy whenever you want it.

To enable the privacy function, you need to use the menu. Press **Alt-H** to bring up the menu, highlight **Enable Privacy**, and then press **Enter**. Now no one can look at your screen, chat with you, or control your keyboard.

Disabling the privacy function is also accomplished from the menu. Press **Alt-H** to bring up the menu, highlight **Disable Privacy**, and then press **Enter**. Users once again have access to your computer through the Invisible Control program.

4 Command Line Operations

The chapter describes the functions of Invisible Control that can be invoked from the DOS command line. The previous chapter described the functions of IC that are invoked from the computer keyboard.

The topics covered in this chapter are:

■   Joining a group

■   Sending a message

Joining a Group

Group mode provides a way for one user to broadcast his screen image to many different users simultaneously. The user who is sending his screen image to the others is called the *group master*. The users who receive the screen image are called *group members*. A group can have only one master, but it may have many members.

To form a group, each group member needs to *join* the group. The **IJOIN** program lets you join a group.

To join a group, type

IJOIN *group_master* **[/W]**

The parameters on the command line have the following meaning:

group_master   The name of the group master.

/W   An optional parameter. If you include **/W**, then **IJOIN** waits until the group master's computer is started. If you omit **/W**, then **IJOIN** terminates with an error message if the group master's computer is not on the network.

Note—You can also join a group by using hot keys or the IC menu, instead of the **IJOIN** command. Refer to Chapter 3 for details.

Example—You want to join a group where the group master is named LEADER. Type

IJOIN   LEADER

After executing this command, your computer will show the image on LEADER's screen.

Example—You want to join a group where the group master is named ALPHA. You also want to wait until ALPHA's computer is started. Type

    IJOIN   ALPHA   /W

Example—One use of the **IJOIN** command is to establish a batch file to start up Invisible Control and then automatically join a group. This can be very convenient in a classroom situation, where the students are always expected to view the teacher's screen. For example, you can have a batch file containing the following two lines:

    IC
    IJOIN   TEACHER

Executing the batch file automatically starts Invisible Control and then begins viewing TEACHER's screen. If you put the above two lines in your AUTOEXEC.BAT file, then these actions are performed automatically when you start your computer.

Note—To leave a group, you must use the IC menu or the **Alt-E** hotkey. Refer to Chapter 3 for details.

Sending a Message

The **ISEND** command is a convenient way to send someone a short message.

To send a message, type

> **ISEND** *name* /: *message*

The parameters have the following meaning.

name   The name of the user to whom you are
                         sending the message.

message   The message you want to send. The message
                         can be up to 26 characters long.

Example—You want to send the message "the printer is ready" to the user named DAVID. Type

> **ISEND DAVID/:THE PRINTER IS READY**

Example—One use of the **ISEND** command is where you run a job on an unmanned computer. You can use **ISEND** to have the unmanned computer send you a message when the job is complete.

For example, suppose your user name is JIM, and you have an unmanned computer named UNMANNED. Let's say you want to run a database sorting program called DBSORT, which takes a very long time to run. If you ran DBSORT on your own computer, then your computer would be tied up until the program was finished. So instead, you want to run DBSORT on the unmanned computer, and have the unmanned computer send you a message when the sorting is complete.

To do this, you would create a batch file on the unmanned computer called RUNSORT.BAT, which contains the following two lines:

> **DBSORT**
> **ISEND JIM/:DATABASE SORT COMPLETE**

When you are ready to begin the database sort, you would do the following:

- ■ <u>Step 1</u>. Enter monitor mode and take control of the unmanned computer. This is done by pressing **Alt-M**, typing UNMANNED, and then pressing **Enter**. You can now view the screen, and use the keyboard, of the unmanned computer.

- ■ <u>Step 2</u>. Enter the command RUNSORT. The unmanned computer now begins to run the database sort.

- ■ <u>Step 3</u>. Exit monitor mode by pressing **Alt-E**.

Now the unmanned computer is running the database sort, and you can continue to use your own computer. When the sort is finished, the message "database sort complete" appears on your computer.

Note—If you intend to use an unmanned computer in this way, you should use the Install/Manager program to disable Local Query on the unmanned computer. Refer to Chapter 5 for details.

5 Customizing Invisible Control

Invisible Control can be customized in a variety of ways. For example, you can change the hot key definitions. You can change various parameters such as the rate with which IC updates the screen display. And you can specify user names to appear on the IC menu.

Customization is performed using the Install/Manager program. Chapter 2 described how to use the Install/Manager to install IC in a default configuration. This chapter describes how to use the Install/Manager program to customize the configuration.

The topics covered include:

■ Starting Invisible Control

■ Creating configuration files

■ Setting default parameters

■ Hot key definitions

■ IC parameters

■ User names

Starting Invisible Control

The **IC** command starts Invisible Control. Unlike many programs, **IC** does not take parameters from the DOS command line. Instead, **IC** obtains its parameters from a configuration file. The *configuration file* is a disk file that contains all of **IC**'s parameters. The contents of the file include hot key definitions, user names, and assorted parameters.

The configuration file must be in the same directory as the **IC** program file. It is customary to choose a name that ends in .INI. The default name of the configuration file is IC.INI, however, you may specify a different name if you wish. When you start **IC**, you can specify which configuration file to use, as shown below.

To start Invisible Control, type

    IC   [*config_file* **]**

The optional parameter has the following meaning:

config_file   The name of the configuration file. The configuration file must be located in the same disk directory as the **IC** program file. It is customary to use a name that ends in .INI. If *config_file* is omitted, the default configuration file name is IC.INI.

There are three instances where it may be useful to have several different configuration files:

■   If you need to use different configurations at different times.

■   If the same computer is used by two or more people, each user may want to have his own configuration file.

■   If **IC** is installed on a file server, you can have a different configuration file for each user. Then everyone can use one copy of **IC**.

Example—Suppose you have a configuration file called LANE.INI. You would tell **IC** to use the configuration file by typing

    IC   LANE.INI

Creating Configuration Files

The preferred method for creating a configuration file is to use the Install/Manager program. Advanced users can also create a configuration file by using a text editor; Chapter 6 describes the procedure.

To start the Install/Manager program, type

    INSTALL

The program loads into memory and displays the main menu, as shown in Figure 5-1.
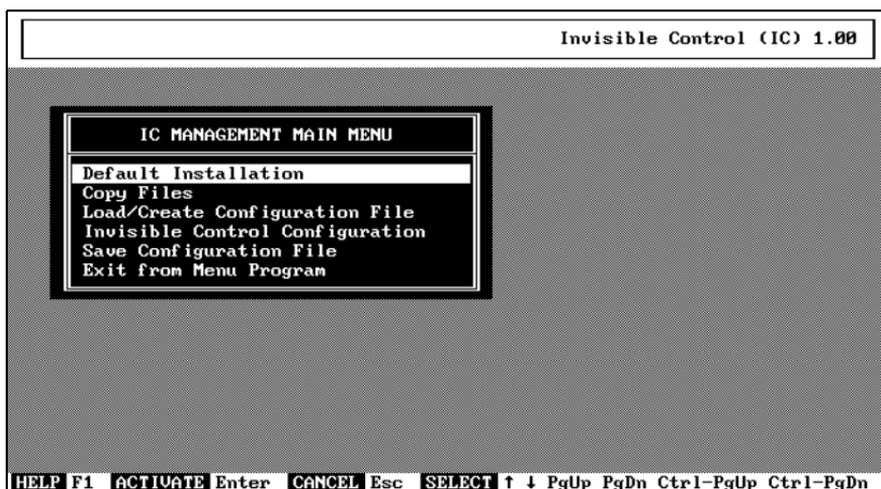
```
                                        Invisible Control (IC) 1.00

        ┌──────────────────────────────────┐
        │       IC MANAGEMENT MAIN MENU     │
        ├──────────────────────────────────┤
        │ Default Installation             │
        │ Copy Files                       │
        │ Load/Create Configuration File   │
        │ Invisible Control Configuration  │
        │ Save Configuration File          │
        │ Exit from Menu Program           │
        └──────────────────────────────────┘




 HELP F1  ACTIVATE Enter  CANCEL Esc  SELECT ↑ ↓ PgUp PgDn Ctrl-PgUp Ctrl-PgDn
```
Figure 5-1. Install/Manager Main Menu

The first step is to enter the name of the configuration file. Select **Load/Create Configuration file** from the Main Menu, and then enter the configuration file name. The Install/Manager program supplies a default file name of IC.INI, however, you may type over the name. Remember that the file must be located in the same directory as the **IC** program file. It is customary to use a name that ends in .INI.

If you enter the name of a file that already exists, the Install/Manager program reads the file into memory so you can modify it. If the file does not already exist, the Install/Manager program creates the file and sets all the parameters to their default values.

The second step in creating a configuration file is to specify the parameters. To do this, select **Invisible Control Configuration** from the Main Menu. The IC Configuration Menu appears, as shown in Figure 5-2.
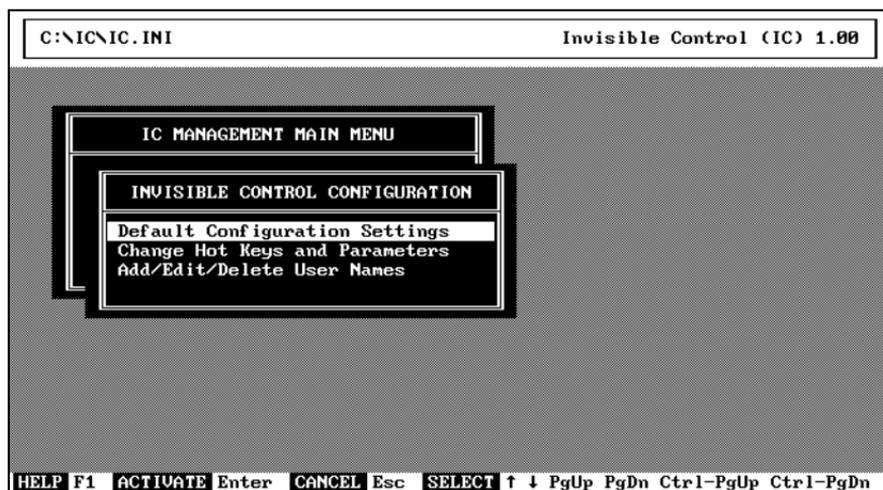

Figure 5-2. Invisible Control Configuration Menu

Using the IC Configuration Menu, you can specify all the parameters for Invisible Control. The parameters are described later in this chapter.

The third and final step is to save the configuration file onto the disk. This is done by selecting **Save Configuration File** from the Main Menu.

Setting Default Parameters

The Install/Manager program provides an easy way to set all the parameters back to their default values. This lets you "start fresh" when you want to create a completely new configuration.

To set all the parameters back to their default values, simply select **Default Configuration Settings** from the IC Configuration Menu.

Hot Key Definitions

To specify the hot keys used by IC, select **Change Hot Keys and Parameters** from the IC Configuration Menu, and then select **Change Hot Key Definitions**. The Hot Key Definitions screen appears, as shown in Figure 5-3.

```
C:\IC\IC.INI                              Invisible Control (IC) 1.00

                      CHANGE HOT KEY DEFINITIONS
    Edit each hot key you wish to change.
    Type A- for ALT, S- for SHIFT, and C- for CTRL.

    Monitor a User          A-M        Remove a Group Member   A-R

    Chat with a User        A-C        Disable Hot Keys        A-S-D

    Join a Group            A-J        Enable Hot Keys         A-S-E

    Exit Chat/Monitor/Group A-E        Bring up Menu Screen    A-H



HELP F1  DONE F9  CANCEL Esc  SELECT Enter ↑ ↓  EDIT → ←  Ins Del Home End
```
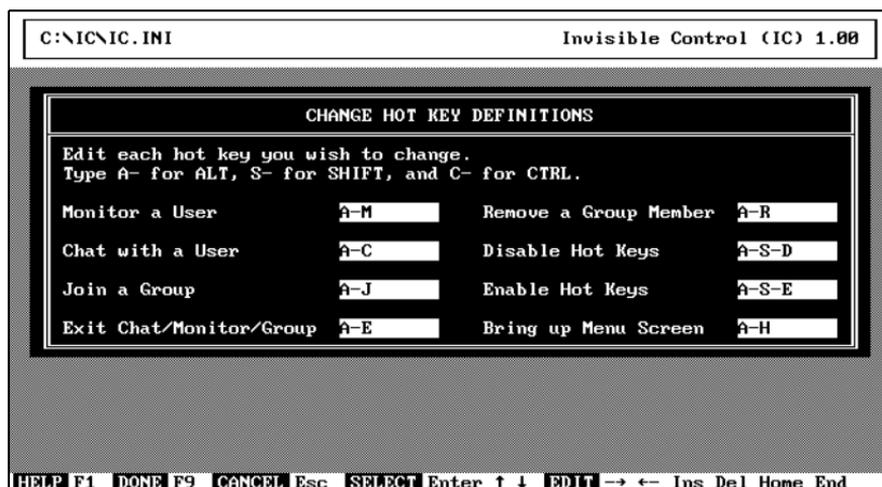
Figure 5-3. Hot Key Definitions Screen

On this screen, you can specify the eight hot keys used by Invisible Control. To enter a hot key, first type one or more *shift prefixes*, and then type the key itself. The shift prefixes you can use are:

■ **A-** (for **Alt**).

■ **C-** (for **Ctrl**).

■ **S-** (for **Shift**).

Example—You want to use **Ctrl-Shift-P** to chat with another user. Move the cursor down to the field labeled **Chat with a User**, and enter **C-S-P**.

Example—You want to use **Alt-F7** to bring up the IC menu. Move the cursor to the field labeled **Bring up Menu Screen**, and enter **A-F7**.

After entering your hot key definitions, press **Enter** or **F9** to complete the entry. You can press **Esc** if you change your mind and decide to cancel your hot key definitions.

IC Parameters

To specify various parameters for IC, select **Change Hot Keys and Parameters** from the IC Configuration Menu, and then select **Change IC Parameters**. The IC Parameters screen appears, as shown in Figure 5-4.

On this screen, you can specify several parameters that control the operation of Invisible Control. The following subsections describe the parameters. When you are finished entering parameters, press **Enter** or **F9**.

```
┌────────────────────────────────────────────────────────────┐
│ C:\IC\IC.INI                          Invisible Control (IC) 1.00 │
└────────────────────────────────────────────────────────────┘

        ┌──────────────────────────────────────────────┐
        │            CHANGE IC PARAMETERS              │
        │ Edit each parameter you wish to change.      │
        │ Start Hot Keys On (Y/N)  Y   Broadcast Interval (0-255)  40 │
        │ Local Query (Y/N)        N   Query Timeout (54-255)     120 │
        │ Translate Buffer (Y/N)   N   Graphics Interval (0-255)   30 │
        │ Use EMS (Y/N)            N   Video Save RAM - K (4-255)   4 │
        │ Use Alternate Name (Y/N) N   Total Sessions (1-254)      16 │
        │ Alternate Name (1-15 Characters): VERDI                    │
        └──────────────────────────────────────────────┘

 HELP F1  DONE F9  CANCEL Esc  SELECT Enter ↑ ↓  EDIT → ←  Ins Del Home End
```

Figure 5-4. Invisible Control Parameters Screen

Local Query Parameters

Normally, when someone else tries to monitor your computer (or join a group where you are the group master), IC asks you if you want to allow the monitoring. If you answer "yes", then the other user is allowed to monitor you. If you answer "no", or if you don't answer at all, then the other user is not allowed to monitor you.

When IC asks if you want to allow monitoring, it is called a *Local Query*. The following two parameters control the local query:

■ **Local Query (Y/N)** specifies whether or not IC should request your permission before allowing monitoring. If you enter **Y** then IC gets your permission before allowing someone else to monitor you. If you enter **N** then IC does not ask for permission; anyone that wants to monitor you can do so, at any time.

■ **Query Timeout** specifies the amount of time that IC waits for you to respond when asking permission to allow monitoring (or joining your group, or chatting). If you do not respond in time, IC assumes that your answer is "no", and does not allow the monitoring. The time is specified in units of 1/18 of a second; the default value is 120, which is approximately seven seconds.

Note—If you want to set up an unmanned computer, you should disable Local Query by selecting **N** for **Local Query (Y/N)**. Then you can take control of the unmanned computer whenever you want to.

Screen Update Interval Parameters

Two parameters are provided that control the frequency with which IC updates the screen display.

■ **Broadcast Interval** specifies how often you send your screen when you are a group master. If there are many group members, sending your screen to all of them involves transferring a lot of data across the network, so you may want to specify a large time interval. The time is specified in units of 1/18 of a second. For example, if you enter 36, then your screen is sent to all your group members every two seconds. This time interval applies to all video modes, both text and graphics.

■ **Graphics Interval** specifies how often you send your screen when you are in video graphics mode (except if you are a group master, in which case **Broadcast Interval** is used instead). Sending graphics requires much more data than sending text, so you may want to specify a large time interval. If the time interval is too small, you may place a large load on the network and slow down the execution of application programs. The time is specified in units of 1/18 of a second. For example, if you enter 54, then your graphics screens are sent every three seconds.

Note—There is no parameter to specify how often text screens are sent. A text screen is sent whenever a change occurs.

Memory Allocation Parameters

Three parameters control the amount of memory used by Invisible Control.

■ **Video Save RAM** is the amount of memory, in kilobytes, that IC allocates to saving your screen. Whenever IC pops up onto your screen (to display the IC menu, or to let you monitor another user, or to enter chat mode), it saves your screen. The screen is restored when you exit IC. The amount of memory required to save your screen depends on whether or not you use graphics, and the type of graphics you use, as shown in Table 5-1.

Table 5-1. Video Save RAM Requirements

Video Mode	Memory Required
Text	4K
CGA Graphics	16K
EGA/Monochrome Graphics	64K
EGA/Color Graphics	128K
VGA Graphics	255K

■ **Translate Buffer** specifies whether or not IC should allocate a 4K buffer to convert color text into monochrome text. The *translate buffer* is only used in text mode, when a monochrome system monitors a color system. If you allocate the translate buffer, then the text is converted to yield the best possible appearance. If you don't allocate the translate buffer, you can still perform the monitor function but the text may look strange.

■ **Use EMS** tells IC whether or not it should use expanded memory. If you have expanded memory in your computer (compatible with the Expanded Memory Specification version 4.0), you can save a considerable amount of DOS memory by letting IC use the expanded memory. If you enter **Y**, then IC places the video save buffer and translate buffer into expanded memory.

Alternate Name Parameters

Everyone who runs Invisible Control is identified by a *user name*. Normally, when you start IC it obtains your user name from the

network operating system. However, with these parameters you can enter an alternate name into the configuration file, and tell IC to use the alternate name instead of the operating system's name.

■ **Use Alternate Name** specifies whether or not IC should use an alternate name. Enter **N** if you want IC to obtain your user name from the network operating system. Enter **Y** if you want IC to obtain your user name from the configuration file.

■ The **Alternate Name** field is used to enter your IC user name. If you specify **Y** for **Use Alternate Name**, then IC utilizes the user name entered in this field.

Note—If your network operating system does not assign you a user name (or if IC is not able to obtain a name from the network operating system), then IC automatically uses the name you enter in the **Alternate Name** field, regardless of what you enter for **Use Alternate Name**.

Hot Key Enable Parameter

The **Start Hot Keys On** parameter specifies if you want the Invisible Control hot keys to be active when you first start IC. If you enter **Y**, the hot keys are enabled when IC is started. If you enter **N**, the hot keys are disabled when IC is started.

Network Session Parameter

The **Total Sessions** parameter determines the number of network sessions that IC can support. If you are a group master, this parameter determines the number of group members who can join your group. For example, if you enter 30, then 30 group members can join your group. If you are not a group master, then this parameter is unimportant.

Technical Note—Each IC network session uses one NetBIOS session. Some NetBIOS implementations accept parameters that let you specify how many sessions NetBIOS should support. If you enter a large value

for **Total Sessions**, you may need to increase the NetBIOS parameter that specifies the number of NetBIOS sessions.

User Names

The IC menu lists all the user names that IC knows about. When IC is started, it obtains this list from the configuration file. To enter names into the list, select **Add/Edit/Delete User Names** from the IC Configuration Menu. The User Names List appears, as shown in Figure 5-5.
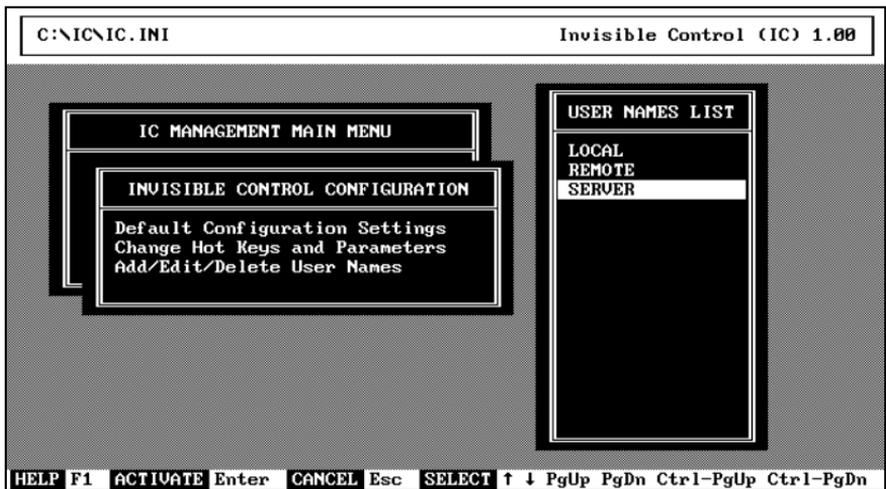

Figure 5-5. Invisible Control User Names List

From this screen, you can add names to the list, edit the names in the list, or delete names from the list.

- To add a name, press **Enter**, select **Add a User Name**, type the new name, and then press **Enter**.

- To edit a name, highlight the name and press **Enter**. Select **Edit a User Name**, type in the desired changes, and then press **Enter**.

- To delete a name, highlight the name, press **Enter**, and then select **Delete a User Name**.

6 Configuration File Syntax

This chapter is for advanced users only. It describes how to create configuration files for Invisible Control using a text editor. Most users should utilize the Install/Manager program to create configuration files, as described in Chapter 5.

The topics covered are:

■ Parameter syntax

■ Hot key parameters

■ User name parameter

■ Miscellaneous parameters

Parameter Syntax

All the parameters for Invisible Control are contained in a configuration file. The default name of the configuration file is IC.INI, however, you can use any file name.

The configuration file is an ASCII text file. Each parameter in the configuration file has the following syntax:

IC.*keyword* = *value*

The ***keyword*** identifies the particular parameter, and ***value*** is the value assigned to the parameter.

The configuration file contains one parameter on each line. The parameters may be listed in any order. All parameters are case-insensitive, that is, uppercase and lowercase letters can be used interchangeably. Most parameters have a default value; if you omit the parameter from the configuration file, IC automatically uses the default value.

In the description of the parameters, the following conventions are used:

■ Uppercase letters denote words that should be entered in the configuration file exactly as shown.

■ Lowercase italic letters denote words that should be replaced with an appropriate value.

■ A vertical bar indicates alternative choices. For example, "**Y | N**" indicates that you should enter either "**Y**" or "**N**".

■ The word ***key*** indicates that you should enter the name of a key on the computer keyboard. The key may be preceded by one or more *shift prefixes*: "**A-**" for **Alt**, "**C-**" for **Ctrl**, or "**S-**" for **Shift**. For example, "**A-S-D**" denotes **Alt-Shift-D**, and "**C-F4**" denotes **Ctrl-F4**.

Hot Key Parameters

The following parameters specify the hot key definitions for Invisible Control. Each parameter corresponds directly to one of the entries on the Install/Manager program's Hot Key Menu, as described in Chapter 5.

IC.CHAT = *key*

The hot key to chat with another user. Default is **A-C**.

IC.DISABLE = *key*

The hot key to disable IC's hot keys. Default is **A-S-D**.

IC.ENABLE = *key*

The hot key to enable IC's hot keys. Default is **A-S-E**.

IC.EXIT = *key*

The hot key to exit from monitor mode, chat mode, or group mode. Default is **A-E**.

IC.JOIN = *key*

The hot key used by a group member to join a group. Default is **A-J**.

IC.MENU = *key*

The hot key for activating the IC menu. Default is **A-H**.

IC.MONITOR = *key*

The hot key to monitor another user. Default is **A-M**.

IC.REMOVE = *key*

The hot key used by a group master to forcibly remove a member from the group. Default is **A-R**.

User Name Parameter

The parameter described in this section is used to add names to the user list on the IC menu. The user list exists mainly for convenience, since you can always type in user names after starting IC.

Note that if you are a group master, the names of your group members are added to the user list automatically, as they join your group.

IC.USER_NAME = *name*

A name to be placed into the IC menu's user list. The name can be from 1 to 15 characters in length. This parameter may be repeated up to 254 times, so that you can specify up to 254 names for the user list.

Miscellaneous Parameters

These parameters control various aspects of Invisible Control. Each parameter corresponds to one entry in the Install/Manager program's IC Parameters screen, as described in Chapter 5.

IC.ALT_NAME = *name*

Your Invisible Control user name. This name is only used if (1) IC cannot obtain a user name from the network operating system, or (2) you specify **IC.USE_ALT_NAME=Y**.

IC.BROADCAST_INTERVAL = *time*

When you are a group master, this parameter determines how frequently you broadcast your screen to the group members. The value of *time* is the time interval between broadcasts, measured in units of 1/18 second. The value of *time* can range from 0 (every 1/18 second) to 255 (approximately 14 seconds). The default value is 18 (one second). This parameter applies in all video modes, both text and graphics.

IC.EMS = Y | N

If you specify **Y**, then IC places the video save buffer and translate buffer in EMS (expanded) memory. If you specify **N**, then IC puts the buffers in conventional DOS memory. Default is **N**.

IC.GRAPHICS_INTERVAL = *time*

When you are in graphics mode, this parameter determines how frequently you send your screen to anyone who monitors your system. The value of *time* is the time interval between screen transmissions, measured in units of 1/18 second. The value of *time* can range from 0 (every 1/18 second) to 255 (approximately 14 seconds). The default value is 36 (2 seconds).

IC.LOCAL_QUERY = Y | N

If you specify **Y**, then IC gets your permission before allowing anyone else to view your screen. If you specify **N**, then anyone can view your screen at any time, without your knowing about it. Default is **Y**.

IC.QUERY_TIMEOUT = *time*

When IC asks permission for someone to view your screen, it gives you a fixed time to respond. If you do not respond within the alloted time, IC assumes that you do not want to allow the other user to view your screen. This parameter defines the amount of time that IC waits for you to grant permission, measured in units of 1/18 second. The value of *time* can range from 54 (3 seconds) to 255 (approximately 14 seconds). The default value is 128 (7 seconds).

IC.START_HOT_ON = Y | N

If you specify **Y**, then the hot keys are enabled when IC is first started. If you specify **N**, then the hot keys are disabled when IC is first started. Default is **Y**.

IC.TRANSLATE = Y | N

This parameter determines how IC handles text mode when a mono-chrome system is used to monitor a color system. If you specify **Y**, then IC attempts to convert the text to achieve the best possible appearance. If you specify **N**, then IC simply copies the text as is, which may result in the text having a strange appearance. Specifying **Y** causes IC to allocate an extra 4K of RAM for the translation buffer. Default is **N**.

IC.USE_ALT_NAME = Y | N

If you specify **Y**, then IC obtains your user name from the **IC.ALT_NAME** parameter. If you specify **N**, then IC obtains your user name from the network operating system. Default is **N**.

IC.VIDEO_SAVE = *size*

The amount of RAM, in kilobytes, to reserve for the video save buffer. The video save buffer is used to save your screen display whenever IC pops up onto your screen. Text modes require 4 kilobytes; graphics modes require a larger video save buffer, as described in Chapter 5. The value of *size* can range from 4 to 255, and defaults to 4.

7 Error Messages

This chapter describes the error messages that you may encounter when using Invisible Control. The topics covered are:

■   Install/Manager error messages

■   IC startup error messages

■   Keyboard operation error messages

■   **IJOIN** error messages

■   **ISEND** error messages

Install/Manager Error Messages

These messages may occur when you run the Install/Manager program.

Cannot obtain default directory.

Cannot restore default directory.

Explanation: An unexpected DOS error occurred. You system RAM may be corrupted.

Recommended action: If you are using any TSR's, or a replacement DOS command shell, try removing them.

Disk full.

Explanation: There is no disk space to store the configuration file.

Recommended action: Exit the program and free up some disk space.

File access denied.

Explanation: You attempted to modify a read-only file, or access a file that is already open.

Recommended action: Make sure the configuration file is not read-only. If you are accessing a configuration file on a file server, make sure no other user is accessing the file.

File not found.

Explanation: The file you specified does not exist.

Recommended action: Enter the correct file name.

Incorrect entry found.

Explanation: You entered incorrect values for some parameters.

Recommended action: Press **Esc**, and the cursor will be positioned on the incorrect value. Correct the entry.

No data in file.

Explanation: The program read the configuration file, but found no data in the file.

Recommended action: Make sure the file name is correct. Edit the file to include the required parameters.

Path not found.

Explanation: The specified disk directory does not exist.

Recommended action: Correct the disk directory name. If using a floppy diskette, make sure the diskette drive door is closed.

Source and destination must be different.

Explanation: In the file copy routine, you specified the same directory for both source and destination.

Recommended action: Correct the entries.

Too many open files.

Explanation: DOS cannot handle any more open files.

Recommended action: Increase the value for FILES= in CON-FIG.SYS.

Total sessions must be greater than number of names.

Explanation: The value you entered for **Total Sessions** is too small.

Recommended action: Increase the value for **Total Sessions** so it is greater than the number of user names.

You must Load/Create Configuration File first.

Explanation: You tried to edit a configuration file without loading it into memory first.

Recommended action: Use **Load/Create Configuration File** to load the file into memory.

No drive letter was specified on the path.

Explanation: The directory path you entered does not include a drive letter.

Recommended action: Edit the entry to include a drive letter.

IC Startup Error Messages

These error messages may appear when you execute the **IC** command to start Invisible Control.

Alternate Name not found in configuration file.

Explanation: IC did not find an alternate name parameter in the configuration file.

Recommended action: Edit the configuration file (with either the Install/Manager program or a text editor), and add an alternate name parameter.

Configuration file open error.

Explanation: The specified configuration file does not exist, or could not be opened.

Recommended action: Make sure you entered the correct file name on the **IC** command line. If the configuration file is on a file server, make sure you have appropriate access rights.

Configuration file read error.

Configuration file close error.

Explanation: An error occurred while reading the configuration file. The configuration file may be corrupted.

Recommended action: Make sure you specified the correct file name. If necessary, reinstall the software and create a new configuration file.

DOS 3.1 or later required.

Explanation: IC requires DOS version 3.1 or later.

Recommended action: Upgrade to a newer version of DOS.

Duplicate name found.

Explanation: The same entry appears more than once in the list of user names in the configuration file.

Recommended action: Edit the configuration file and correct the list.

EMS function failed.

Explanation: The expanded memory (EMS) in your computer is not working correctly.

Recommended action: Check your expanded memory hardware and software. You should reboot the system before proceeding.

EMS 4.0 or later required.

Explanation: IC requires expanded memory (EMS) version 4.0 or later.

Recommended action: Upgrade your expanded memory manager to version 4.0.

Error adding name to network.

Required name is already in use on network.

Explanation: The network will not accept your user name. Your user name may already be in use.

Recommended action: Try changing your user name, or defining an alternate name.

Error issuing network listen or receive command.

No network running.

Explanation: The NetBIOS is not installed, or is not functioning correctly.

Recommended action: Make sure your network hardware and NetBIOS software are correctly installed.

IC is already installed.

Explanation: You attempted to install IC when it is already installed.

Recommended action: None.

IC was not installed.

Explanation: The IC program could not install itself because of an error.

Recommended action: Correct the condition causing the error and try again.

Increase number of sessions.

Explanation: The number of network sessions specified in the configuration file is less than the number of user names.

Recommended action: Increase the **Total Sessions** parameter so it is greater than the number of user names in the configuration file.

No Expanded Memory manager found.

Explanation: You told IC to use EMS, but there is no EMS in the system. IC automatically uses conventional DOS memory instead.

Recommended action: Make sure your expanded memory hardware and software are correctly installed.

No alternate name defined.

Explanation: An alternate name is required, but no alternate name was found in the configuration file.

Recommended action: Edit the configuration file and add an alternate name.

Not enough system RAM to allocate video save buffer.

Explanation: There is not enough memory in your system to allocate the requested video save buffer.

Recommended action: Reduce the size of the video save buffer, or add more memory to the system, or tell IC to use expanded memory.

Only numeric values allowed.

Sequence not supported.

User name must be between 1 and 15 characters in length.

Value out of range.

Explanation: A parameter in the configuration file has an invalid value, or incorrect keyword, or invalid syntax, or invalid length, or is otherwise unacceptable.

Recommended action: Edit the configuration file and correct the offending parameter.

Keyboard Operation Error Messages

These message may be displayed when you control IC from the computer keyboard.

Exit Chat/Monitor/Group first

Explanation: You attempted an operation that is not valid in your current mode.

Recommended action: Use **Alt-E** to exit from chat, monitor, or group mode, and then retry the operation.

Illegal key - not accepted

Explanation: You are attempting to change the hot key definitions on the IC menu, but the key you pressed is not an acceptable hot key.

Recommended action: Select a different hot key.

Increase session table size.

Explanation: A user attempted to contact you, but there were no network sessions available.

Recommended action: Edit the configuration file and increase the **Total Sessions** parameter.

Network error.

Explanation: A NetBIOS operation failed.

Recommended action: Retry the operation. If the failure persists, check your network hardware and NetBIOS software.

Not in chat, monitor, or group.

Explanation: You pressed the **Alt-E** hot key to exit chat, monitor, or group mode, but you are not in any of those modes. The key press is ignored.

Recommended action: None.

No response from that user.

Explanation: The user you called did not respond to your request.

Recommended action: Make sure you entered the correct user name. Retry the request later.

Remove all group connections.

Explanation: You tried to enable privacy, but privacy cannot be enabled because you are currently a group master.

Recommended action: Go the the IC menu, and remove all your group members.

Remove user from group first.

Explanation: You are a group master, and you attempted to monitor one of your group members.

Recommended action: Remove the user from your group.

Resource error.

Explanation: The IC software has an internal error.

Recommended action: Contact Invisible Software technical support.

That user is currently busy.

Explanation: You attempted to contact another user, but the user is currently busy performing some other function in IC.

Recommended action: Retry the operation later.

User currently unavailable.

Explanation: You attempted to contact another user, but the user has enabled privacy.

Recommended action: Retry the operation later.

User not on network.

Explanation: You attempted to contact another user, but the user is not on the network, or is not running Invisible Control.

Recommended action: Make sure you entered the correct user name. Try again when the user is on the network.

You cannot call yourself.

Explanation: You attempted to monitor your own system, or chat with yourself.

Recommended action: Don't do that.

Your request has been denied.

Explanation: You attempted to contact another user, but the other user refused permission for you to monitor his system.

Recommended action: None.

IJOIN Error Messages

The following errors may occur when you use the **IJOIN** program.

Name too long.

Explanation: The name you entered is too long. The name must be between 1 and 15 characters in length.

Recommended action: Correct the name.

No command or name specified.

Explanation: The parameters on the **IJOIN** command line are incorrect.

Recommended action: Correct the parameters.

IC program not present. Install IC first.

Explanation: You attempted to run **IJOIN** without installing IC first.

Recommended action: Install IC before running **IJOIN**.

Request terminated.

Explanation: The operation could not be completed because a NetBIOS error occurred.

Recommended action: Make sure your network hardware and NetBIOS software are correctly installed and working.

User currently unavailable.

Explanation: The user you specified has enabled privacy.

Recommended action: Try again later.

User not on network.

Explanation: The user you specified is not on the network, or is not running IC.

Recommended action: Make sure you entered the correct user name. Try again when the user is on the network.

ISEND Error Messages

The following errors may occur when you use the **ISEND** program.

Name length error.

Explanation: The name you entered is too long. The name must be between 1 and 15 characters in length.

Recommended action: Correct the name.

Network error. Request terminated.

Explanation: The user you specified is not on the network, or is not running IC; or there was a NetBIOS error.

Recommended action: Make sure that you entered the correct user name, and that the user is on the network. Make sure your network hardware and NetBIOS software are correctly installed.

No command or name specified.

Explanation: The parameters on the **ISEND** command line are incorrect.

Recommended action: Correct the parameters.

IC program not present. Install IC first.

Explanation: You attempted to run **ISEND** without installing IC first.

Recommended action: Install IC before running **ISEND**.

INVISIBLE CONTROL
Remote Control Software For LANs

Invisible Control is a software package that gives you remote control over other computers in a local area network. With Invisible Control, you can view another computer's screen, and enter keys at another computer's keyboard, just as if you were there.

The features of Invisible Control include

- **Monitor mode**, where you take over the screen and keyboard of another computer.

- **Group mode**, where you broadcast the image on your computer screen to many other computers simultaneously.

- **Chat mode**, where you have a two-way conversation with any other user on the network.

In addition, Invisible Control lets you make use of unmanned computers on the network. By remote control, you can start a job running on an unmanned computer, and Invisible Control will tell you when the job is done.

Invisible Control supports both color and monochrome text screens, as well as CGA, EGA, and VGA graphics screens.

System Requirements

A personal computer with DOS 3.1 or later, and a NetBIOS compatible local area network.

Expanded memory is optional.