THOROUGHBRED®
SOFTWARE INTERNATIONAL, INC.

THOROUGHBRED® BASIC™

Customization and Tuning Guide

Volume I: Terminals, Printers, Directories, Ghost Tasks

Version 8.9.1

Thoroughbred Software International, Inc.

7 Cedar Grove Lane, Suite 30 • Somerset, NJ 08873

115 N University Drive, Suite C • Nacogdoches, TX 75961

Telephone: 732-560-1377 • 800-524-0430 • **www.tbred.com**

Published by:
Thoroughbred Software International, Inc.
7 Cedar Grove Lane, Suite30
Somerset, New Jersey 08873

Copyright ©2026 by Thoroughbred Software International, Inc.

All rights reserved. No part of the contents of this document
may be reproduced or transmitted in any form or by any means
without the written permission of the publisher.

Document Number: BC8.9.1M101

The Thoroughbred logo, Swash logo, and Solution-IV Accounting logo, OPENWORKSHOP, THOROUGHBRED, VIP FOR DICTIONARY-IV, VIP, VIPImage, DICTIONARY-IV, and SOLUTION-IV are registered trademarks of Thoroughbred Software International, Inc.

Thoroughbred Basic, TS Environment, T-WEB, Script-IV, Report-IV, Query-IV, Source-IV,
TS Network DataServer, TS ODBC DataServer, TS ODBC R/W DataServer, TS DataServer for Oracle,
TS XML DataServer, TS DataServer for MySQL,TS DataServer for MariaDB, TS DataServer for MS SQL Server,
GWW Gateway for Windows, Report-IV to PDF, TS ReportServer, TS WebServer, TbredComm, Thoroughbred Web Terminal, WorkStation Manager, FormsCreator, T-RemoteControl, Solution-IV Accounting, Solution-IV Reprographics, Solution-IV ezRepro, Solution-IV RTS, and DataSafeGuard are trademarks of Thoroughbred Software International, Inc.

Other names, products and services mentioned are the trademarks or registered trademarks of their respective vendors or organizations.

Notational Symbols

BOLD FACE/UPPERCASE	Commands or keywords you must code exactly as shown. For example, **CONNECT** VIEWNAME.
Italic Face	Information you must supply. For example, **CONNECT** *viewname*. In most cases, *lowercase italics* denotes values that accept lowercase or uppercase characters.
UPPERCASE ITALICS	Denotes values you must capitalize. For example, **CONNECT** *VIEWNAME*.
Underscores	Displays a default in a command description or a default in a screen image.
Brackets **[ ]**	You can select one of the options enclosed by the brackets; none of the enclosed values is required. For example, **CONNECT** [VIEWNAME|*viewname*].
Vertical Bar |	Piping separates options. One vertical bar separates two options, two vertical bars separate three options. You can select only one of the options
Braces { }	You must select one of the options enclosed by the braces. For example, **CONNECT** {VIEWNAME|*viewname*}.
Ellipsis **. . .**	You can repeat the word or clause that immediately precedes the ellipsis. For example, **CONNECT** {*viewname1*}[[**,** *viewname2*] **. . .**].
lowercase	displays information you must supply, for example, SEND filename.txt.
Brackets **[ ]**	are part of the syntax and must be included. For example, SEND **[**filename.txt**]** means that you must type the brackets to execute the command.
punctuation	such as **,** (comma), **;** (semicolon), **:** (colon), and **( )** (parentheses), are part of the syntax and must be included.

INTRODUCTION

After you install or upgrade Thoroughbred Basic, you can modify and optimize it to fit smoothly within the environment defined by your hardware and operating system. As you develop, maintain, or enhance applications the information in this manual will help you tailor Thoroughbred Basic to meet current and future site requirements.

How you use this manual depends on whether your needs are immediate or long-term:

- If you have just installed Thoroughbred Basic please refer to *After an installation*.
- If you have just upgraded Thoroughbred Basic please refer to *After an upgrade*.
- If you have no immediate plans to customize or tune Thoroughbred Basic please refer to *Long-range Planning*.

After an Installation

To customize and tune Thoroughbred Basic after an installation you can perform the following tasks:

- If you need to create a terminal type to fully establish your system console as a terminal Thoroughbred Basic can efficiently use, please refer to *How to Establish Terminals*.
- To define your system terminals to Thoroughbred Basic please refer to *How to Establish Terminals*.
- To define your system printers to Thoroughbred Basic please refer to *How to Establish Printers*.

Apart from these three tasks, you may have no immediate need for customization and tuning. Because site requirements will change as you develop Thoroughbred Basic applications, it is a good idea to skim through the rest of this manual so that you can anticipate future needs and help plan future modifications to the Thoroughbred Basic environment. For more information on the contents of this manual please refer to *Long-range Planning*.

After an Upgrade

Because you copied or restored the IPLINPUT, TERMINAL, and up to three TCONFIG files as part of your upgrade, you have preserved the environment your site established for previous releases of Thoroughbred Basic.

In all likelihood, you have no immediate need for customization and tuning, but you may want to review the information in this manual to determine whether further modifications will enhance your system. For more information on the contents of this manual please refer to the following section.

Copyright © 2026 Thoroughbred Software International, Inc.

Long-range Planning

Your need to customize and tune Thoroughbred Basic will depend primarily on two factors:

- Site hardware may change.
- Application development can foster sets of site requirements that evolve or change as an application is designed, coded, debugged, maintained, and enhanced.

This manual contains information on:

Terminals Over time, you will probably add, replace, or remove terminals. You can use the information in *How to Establish Terminals* to define all your terminals to Thoroughbred Basic.

Printers Many sites use certain printers to perform specific tasks. The printer you use when you develop an application may not be the printer you use when the application is placed in production. You can use the information in *How to Establish Printers* to define site printers to Thoroughbred Basic.

Directories The ability to create and manipulate directories helps organize files and determine how information is stored. You can use the information in *How to Establish Directories* to make directories available to Thoroughbred Basic, create Thoroughbred Basic subdirectories, and prevent Thoroughbred Basic from recognizing directories.

Ghost tasks Background tasks, also called ghost tasks, can run under Thoroughbred Basic. You can use the information in *How to Establish Ghost Tasks* to make ghost tasks available or unavailable to Thoroughbred Basic.

User logins Some operating systems enable you to create Thoroughbred Basic user logins. These user logins allow users to login to Thoroughbred Basic, not to the operating system. The recommended way to manage any user login is to use the system administration capabilities of your operating system. However, under some circumstances, you can use the information in *How to Establish User Logins* to create or delete Thoroughbred Basic user logins.

Activation Key If you have not activated Thoroughbred Basic, you have thirty days to validate your system. You can use the information in the section titled *How to Get an Activation Key* to obtain an Activation Key from Thoroughbred Software International.

Services Thoroughbred Software International provides online documentation and training classes to address each customer's individual needs and requirements. For more information, please refer to the *Thoroughbred Software Services* section of this manual.

System files IPLINPUT, TERMINAL, SERVER.MAP, TERM.MAP, TCONFIG, TCONFIG8, and TCONFIGW are files that Thoroughbred Basic uses to help manage the system environment. You can use the information in the Thoroughbred Basic Customization and Tuning Guide – System Files, to understand and modify these system files.

Copyright © 2026 Thoroughbred Software International, Inc.

Each section mentioned above begins with an introduction that serves as a summation and a list of section contents. For more detailed information, please refer to the relevant sections for each topic.

NAMING DEVICES

Task IDs

Windows

Task IDs must be two, three or four characters long. The first character is usually T, but the following characters are also allowed: A, B, E, H, I, J, K, M, U, V, W, X, Y, Z. Valid second, third, and fourth characters are 0-9 and A-Z.

UNIX/Linux

Task IDs must be two, three or four characters long. The first character is usually T, but the following characters are also allowed: A, B, E, H, I, J, K, M, U, V, W, X, Y, Z, and a-z. Valid second, third, and fourth characters are 0-9, A-Z, and a-z.

Ghost Tasks

Windows

Not supported.

UNIX/Linux

62 Ghost Tasks are supported that must be configured in order: G0-G9, GA-GZ, and Ga-Gz.

Disk Directories

Windows UNIX/Linux

Disk Directory names must be two characters long. D0-D9, DA-DZ, and Da-Dz are allowed. Directories are searched in the order listed, not in name order. Disk Numbers are based on the second character: D0-D9 = 0-9, DA-DZ = 10-35, Da-Dz = 36-61.

Copyright © 2026 Thoroughbred Software International, Inc.

Printers

Windows UNIX/Linux

Printer names must be two characters long. The first character is usually L or P, but the following characters are also allowed: C, F, N, O, Q, R, S, 0-9, and a-z. Valid second characters are: 0-9, A-Z, and a-z.

HOW TO ESTABLISH TERMINALS

If you have just finished installing Thoroughbred Basic, you can use the following procedure to establish all your site terminals to Thoroughbred Basic:

1. Define your system console as a terminal that Thoroughbred Basic can efficiently use.

   During the installation you may have specified a terminal definition that does not match the terminal type of your system console. In that case, you are using terminal emulation capabilities to mimic a predefined terminal or relying on the capabilities your terminal has in common with a predefined terminal.

   If you changed any of the settings on your system console to make use of terminal emulation you may run into problems with other programs and applications. If you are relying on a compatible terminal, even a good match for a predefined terminal may generate minor display problems when you run Thoroughbred Basic or other Thoroughbred products.

   For information on how to fully define your system console to Thoroughbred Basic, please refer to the section titled *How to Create a Terminal Definition.*

   NOTE: If Thoroughbred Basic predefined your terminal, or if your terminal emulation or terminal analogue provides complete operational compatibility with a predefined terminal, you can skip this task.

2. Define other types of terminals as terminals Thoroughbred Basic can efficiently use.

   If you have a variety of terminals at your site, you can define all of them to Thoroughbred Basic. If Thoroughbred Basic has predefined a terminal, you only need to follow the procedure outlined in this section; if Thoroughbred Basic has not predefined a terminal, you may want to use the procedure described in the section titled *How to Create a Terminal Definition*.

   NOTE: If you have only one type of terminal at your site you can skip this task.

3. Establish all site terminals as terminals Thoroughbred Basic can use.

   After you define site terminals to Thoroughbred Basic, you can specify all your terminals as Thoroughbred Basic terminals. For more information on the procedures, you can use to accomplish this task please refer to the section titled *How to Establish All Site Terminals*.

4. Establish site login procedures.

Copyright © 2026 Thoroughbred Software International, Inc.

For more information on Thoroughbred Basic logins, please refer to the section titled *How to Establish Site Login Procedures*.

You may need to modify a terminal definition to make more use of its capabilities. For more information on how to modify an existing terminal definition, please refer to the section titled *How to Modify a Terminal Definition*.

How to Create a Terminal Definition

NOTE: As part of the Thoroughbred Basic installation procedure, you established your system console as a terminal Thoroughbred Basic could use. If the **install** utility predefined your terminal, or if your terminal emulation or terminal analogue provides complete operational compatibility with a predefined terminal, you can skip this section.

A Thoroughbred Basic terminal table is a set of specifications that tells Thoroughbred Basic how the terminal interacts with the operating system and Thoroughbred Basic. To make full use of terminal capabilities you must have complete and accurate terminal tables for all site terminals. Thoroughbred Basic supplies predefined terminal tables for many types of terminals. If a predefined table is unavailable for your terminal, you can use the information and procedure in this section to create a terminal table.

Prepare for the Terminal Definition Procedure

Before you begin to define and create a terminal table, please consider the following:

- Your terminal must have auto-scroll capabilities, that is, it must be able to roll up the screen one line when the cursor is on the bottom line of the display and you press the **Enter** key. Thoroughbred Basic cannot use a terminal that lacks auto-scroll capabilities.

- You will need to provide a fair amount of technical information to Thoroughbred Basic. Please get the technical reference for the terminal. Make sure the documentation includes lists of terminal functions, key codes, and escape sequences. If these specifications are missing, please contact your terminal manufacturer for the relevant information.

Copyright © 2026 Thoroughbred Software International, Inc.

Begin the Terminal Definition Procedure

From the operating system prompt in your Thoroughbred Basic home directory type

./install

and press the **Enter** key. The **install** utility will display the Installation and Updating Procedures Menu:

```
    Thoroughbred BASIC Installation and Updating Procedures


                1)  Install New System
                2)  Install/Update User Logins
                3)  Install/Update BASIC Directories
                4)  Install/Update BASIC Printers
                5)  Install/Update BASIC Terminals
                6)  Install/Update BASIC Ghost Tasks


                Enter Selection (1 - 6) or <CR> to end:
```

You must enter a valid value in the following field:

Enter Selection (1 - 6) or <CR> to end:

To define a terminal type **5** and press the **Enter** key:

- If you have not activated Thoroughbred Basic the **install** utility will display the Activation Procedure screen. Please go to the following section.
- If you have activated Thoroughbred Basic, or if you are using a demonstration copy of Thoroughbred Basic, the **install** utility will display the Configuration Menu. Please skip the following section and go to the section titled *Choose the type of display*.

Copyright © 2026 Thoroughbred Software International, Inc.

Check the Activation Procedure Screen

If you have not activated Thoroughbred Basic, the following screen will be displayed:

```
            Thoroughbred BASIC Activation Procedure


       This system contains a temporary installation of
       Thoroughbred BASIC.
       You have less than 'nn' days before the number
       of active users is restricted to 3.


                    SSN = XXXXXXXXX-XX
                    Installation Code = XXXXXXXXX

       Do you want to enter the Activation Key? (Y/N):
```

You must enter a valid value in the following field:

Do you want to enter the Activation Key? (Y/N)

Y If you plan to activate Thoroughbred Basic now, please refer to *How to Get an Activation Key* in this manual. In most cases, you will want to wait until you finish this task.

N You do not want to enter the Activation Key now. You can establish your terminal before you activate Thoroughbred Basic.

> **Note:** To validate your copy of Thoroughbred Basic, you must get an Activation Key from Thoroughbred Software. From the installation date you have thirty days to obtain and enter an Activation Key. If thirty days elapse without activation, the installed version of Thoroughbred Basic will be restricted.

If you select **N** the **install** utility will display the following message:

Thoroughbred BASIC Level x *nn* User
DEPRESS THE CARRIAGE RETURN KEY:

Press the **Enter** key to display the Configuration Menu.

Copyright © 2026 Thoroughbred Software International, Inc.

Choose the Type of Display

The **install** utility displays the Configuration Menu:

```
SELECT TCONFIG FILE TO EDIT


   1. TCONFIG8 (NON-WINDOWS)
   2. TCONFIGW (WINDOWS ONLY)


SELECT OPTION (1 OR 2):
```

To begin defining a terminal you must decide whether the terminal will use Thoroughbred Basic Windows. You must enter a valid value in the following field:

SELECT OPTION (1 OR 2):

1 is the **TCONFIG8** option, an option that does not enable you to use Dictionary-IV or Thoroughbred Basic Windows.

TCONFIG8 is the name of a file that is placed in the **UTILS** directory under the Thoroughbred Basic home directory. This file contains specifications and definitions that enable Thoroughbred Basic to manage your terminal hardware.

Thoroughbred Dictionary-IV is one of the application development systems. It can provide many resources to Thoroughbred Basic. For more information on these resources please refer to the section on the *Dictionary-IV Interface* in the Thoroughbred Basic Developer Guide.

Thoroughbred Basic Windows is a windowing system that enables you to create pop-up help systems, menu systems, and other program features commonly associated with windowing systems. For more information on Thoroughbred Basic Windows please refer to the Thoroughbred Basic Developer Guide.

If you have very old terminals, if you do not plan to use Dictionary-IV, or if you plan to develop text-based applications, you may want to choose this option.

2 is the **TCONFIGW** option, which enables you to use Dictionary-IV and Thoroughbred Basic Windows.

TCONFIGW is the name of a file that is placed in the **UTILS** directory under the Thoroughbred Basic home directory. This file contains specifications and definitions that enable Thoroughbred Basic to manage your terminal hardware.

Copyright © 2026 Thoroughbred Software International, Inc.

If you have terminals with graphics capabilities, if you plan to use Dictionary-IV, or if you plan to develop applications that make use of the Thoroughbred Basic Windows graphical user interface, you must choose this option.

The choice of TCONFIG file is tied to the **DEV T0** specification in the initial program load (IPL) file. IPL files contain specifications for devices such as terminals and printers that are loaded into memory when a user starts Thoroughbred Basic. If the terminal has display problems after you finish the procedure in this section, you can check the **DEV T0** specification. If the specification does not match your choice of TCONFIG file, you can modify the specification. For more information on TCONFIG files, IPL files, and the **DEV T0** specification, please refer to the Thoroughbred Basic Customization and Tuning Guide – System Files.

After you select **1** or **2** and press the **Enter** key, the **install** utility will display the Terminal Menu.

Choose the Modify Terminal Tables Option

The **install** utility displays the Terminal Menu:

```
1. MODIFY TERMINAL TABLES
2. MODIFY TERMINAL/MODEL CODE CONFIGURATION
3. LOAD TABLE INTO TERMINAL


2. SELECT OPTION (1, 2, OR 3):
```

You must enter a valid value in the following field:

2. SELECT OPTION (1, 2, OR 3):

To view a list of defined terminals, type **1** and press the **Enter** key. The **install** utility will display the Defined Terminal Table List screen:

Copyright © 2026 Thoroughbred Software International, Inc.

Check the Defined Terminal Table List Screen

The **install** utility displays the Defined Terminal Table List screen:

```
                    DEFINED TERMINAL TABLE LIST

   ADDSUP      ADDS VIEWPOINT          MICOTERM   MICRO TERM
   ADM-3A      LSI MODEL ADM-3A        PIXEL      PIXEL CONSOLE TERM
   ALTOS-II    ALTOS-II TERMINAL       PROGTERM   BURROUGHS/CONV.PT
   ALTOS-V     ALTOS-V TERMINAL        PT200      PRIME PT200

   FASTRK30    4-PHASE FASTTRAK 30     TVI920     TELEVIDEO 920
   FORTUNE     FORTUNE                 TVI950     TELEVIDEO 950
   HP-2392     HP2392 DISPLAY          VT100      DEC VT100
   HP-98785    HP98785A DISPLAY        VT131      DEC VT131

3. C-CREATE M-MODIFY D-DELETE L-LIST TABLE - ENTER C, M, D, OR L:
```

Each terminal definition has two parts: the Model Code and the terminal description. The Model Code precedes the description. For example, the Model Code for a DEC VT100 terminal is **VT100**.

Because you are creating a terminal definition this section of the manual assumes that your terminal is not displayed on the Defined Terminal Table List screen. If, however, a listed terminal is operationally compatible with the terminal you plan to define please write down the listed terminal's Model Code.

You must enter a valid value in the following field:

3. C - CREATE, M - MODIFY, D - DELETE, L - LIST TABLE - ENTER C, M, D, OR L:

C is short for **CREATE** a terminal table. You can build a new terminal table in one of the following ways:

- You can use the default terminal definition, which means that you will have to enter most of the terminal specifications.
- You can use an existing terminal definition, especially if a listed terminal is operationally compatible with the terminal you want to define. You may not have to enter most of the terminal specifications.

M is short for **MODIFY** a terminal table. You can add, delete, or replace table specifications to change an existing terminal definition. In most cases you will use this option to supplement the capabilities of a terminal that is already defined.

D is short for **DELETE** a terminal table. You can remove terminal definitions from the list of defined terminals.

L is short for **LIST** a terminal table. You can print the list of terminals on the Defined Terminal Table List screen or print a terminal table, which contains the complete list of specifications for one defined terminal.

If you have been using a defined terminal that is operationally compatible with your undefined terminal you may want to print the list of specifications for the defined terminal so you can compare them to the specifications listed in the reference documentation for your terminal.

Copyright © 2026 Thoroughbred Software International, Inc.

> **NOTE:** Before you can list a terminal table, you must define at least one printer to Thoroughbred Basic. For more information on how Thoroughbred Basic works with printers please refer to *How to Establish Printers*.

END means end the terminal definition procedure. If you select this option you will return to the Terminal Menu, which is described in *Choose the Modify Terminal Tables Option*.

Because you are creating a terminal definition you may need to consider just two of these options:

- To print a list of the specifications in a terminal definition, please go to the next section titled *List a Terminal Table*.
- To enter the specifications that form a terminal definition, please refer to the section titled *Begin to Create a Terminal Definition.*

List a Terminal Table

> **NOTE:** Before you can list a terminal table, you must define at least one printer to Thoroughbred Basic. For more information on how Thoroughbred Basic works with printers please refer to *How to Establish Printers*.

The **install** utility displays the Defined Terminal Table List screen:

```
                    DEFINED TERMINAL TABLE LIST

   ADDSUP      ADDS VIEWPOINT         MICOTERM   MICRO TERM
   ADM-3A      LSI MODEL ADM-3A       PIXEL      PIXEL CONSOLE TERM
   ALTOS-II    ALTOS-II TERMINAL      PROGTERM   BURROUGHS/CONV.PT
   ALTOS-V     ALTOS-V TERMINAL       PT200      PRIME PT200

   FASTRK30    4-PHASE FASTTRAK 30    TVI920     TELEVIDEO 920
   FORTUNE     FORTUNE                TVI950     TELEVIDEO 950
   HP-2392     HP2392 DISPLAY         VT100      DEC VT100
   HP-98785    HP98785A DISPLAY       VT131      DEC VT131

3. C-CREATE M-MODIFY D-DELETE L-LIST TABLE - ENTER C, M, D, OR L:
```

You must enter a valid value in the following field:

3. C - CREATE, M - MODIFY, D - DELETE, L - LIST TABLE - ENTER C, M, D, OR L:

To list defined terminal tables, type **L** and press the **Enter** key. The **install** utility will display the following message:

TABLE LISTING ONLY (Y/N)?

Y You can print the list of terminals displayed on the Defined Terminal Table List screen. Only the Model Code and the terminal description will be printed.

N You can print the list of values specified in one terminal table. These values can include the numeric values associated with keystrokes, values associated with printer mnemonics, and so on.

Copyright © 2026 Thoroughbred Software International, Inc.

If you plan to choose this option, make sure you have written down the Model Code of a defined terminal that is operationally compatible with your undefined terminal.

END means end the list procedure. If you have not used the information in *How to Establish Printers***,** to define a printer to Thoroughbred Basic, you may want to choose this option.

If you type **END** and press the key you will return to the Terminal Menu screen, which is described in the section titled *Choose the Modify Terminal Tables Option*.

Type **Y** or **N** and press the **Enter** key:

- If you selected **Y**, and site printers are validly defined to Thoroughbred Basic, the following message will be displayed:

  SELECT PRINTER: *XN* . . .

  XN is the printer code of a printer defined to Thoroughbred Basic.

  Type one of the displayed printer codes and press the **Enter** key. The **install** utility will print the list of Model Codes and terminal descriptions displayed on the Defined Terminal Table List screen. After the information is printed, you will return to the Defined Terminal Table List screen. Please refer to the following section to continue defining your terminal.

- If you selected **N**, and site printers are validly defined to Thoroughbred Basic, the following message will be displayed:

  ENTER TERMINAL TABLE:

  Type the Model Code you wrote down earlier and press the **Enter** key. The **install** utility will display the following message:

  SELECT PRINTER: *XN* **. . .**

  XN is the printer code of a printer defined to Thoroughbred Basic.

  Type one of the displayed printer codes and press the **Enter** key. The **install** utility will print all the specifications in the terminal table; it will also display the specifications on your terminal screen. After the information is printed, you will return to the Defined Terminal Table List screen. Please refer to the following section to continue defining your terminal.

-

Copyright © 2026 Thoroughbred Software International, Inc.

If site printers are not defined to Thoroughbred Basic, if site printers are invalidly defined, or if site printers are busy, the following message will be displayed:

PRINTER IN USE (**HIT CR** . .)

This message usually signifies a printer definition error. If you press the **Enter** key the message will redisplay; if you do not press the **Enter** key the message will redisplay. To escape from this loop, press **Ctrl-b**. The following message will be displayed:

Return to UNIX (Y/N)? or Debug (D)?

Y means that you will leave the install utility and return to the operating system prompt in the Thoroughbred Basic home directory. **Y** is the only option that enables you to escape from the message loop.

N means that you will remain inside the loop and continue to receive the message. To escape the loop, you will have to press **Ctrl-b** then enter **Y** to return to your operating system prompt.

D is short for debug. In this situation the debug facility will place you inside the loop and you will continue to receive the message. To escape the loop, you will have to press **Ctrl-b** then enter **Y** to return to your operating system.

Type **Y** and press the **Enter** key. You will leave the **install** utility and return to the operating system prompt in the Thoroughbred Basic home directory. To continue this procedure, please refer to the section titled *Begin the Terminal Definition Procedure*.

Begin to Create a Terminal Definition

NOTE: You will be entering or checking a large number of values as you work through the next few sections. Make sure you have the technical references for your terminal close at hand. You may also want to get a notebook or a piece of paper so you can write down the values you enter as you create your terminal definition.

The **install** utility displays the Defined Terminal Table List screen:

```
                    DEFINED TERMINAL TABLE LIST

   ADDSUP      ADDS VIEWPOINT          MICOTERM   MICRO TERM
   ADM-3A      LSI MODEL ADM-3A        PIXEL      PIXEL CONSOLE TERM
   ALTOS-II    ALTOS-II TERMINAL       PROGTERM   BURROUGHS/CONV.PT
   ALTOS-V     ALTOS-V TERMINAL        PT200      PRIME PT200

   FASTRK30    4-PHASE FASTTRAK 30     TVI920     TELEVIDEO 920
   FORTUNE     FORTUNE                 TVI950     TELEVIDEO 950
   HP-2392     HP2392 DISPLAY          VT100      DEC VT100
   HP-98785    HP98785A DISPLAY        VT131      DEC VT131

3. C-CREATE M-MODIFY D-DELETE L-LIST TABLE - ENTER C, M, D, OR L:
```


Copyright © 2026 Thoroughbred Software International, Inc.

You must enter a valid value in the following field:

3. **C - CREATE**, **M - MODIFY**, **D - DELETE**, **L - LIST TABLE - ENTER C**, **M**, **D**, **OR L**:

To create a terminal definition type **C** and press the **Enter** key. The **install** utility will display the following message:

4. **ENTER TERMINAL TABLE**:

Take one of the following actions:

- Type a Model Code and press the **Enter** key. A Model Code is 1 through 8 alphanumeric characters long. Valid characters are **A** through **Z**, **a** through **z**, and **0** through **9**.

  Valid values can include **1**, **a**, **A**, **12345678**, and **q4AX7**. Because you are creating a terminal table valid values do not include the names of existing terminal tables.

  If you enter an invalid Model Code, the **install** utility will redisplay the message.

- Type **END** and press the **Enter** key. You will halt the terminal definition procedure and return to the Terminal Menu. If you want to resume the terminal definition procedure, please refer to the section titled *Choose the Modify Terminal Tables Option*.

After you enter a valid value other than **END** the **install** utility will display the following message:

5. **ENTER BASE TERMINAL TABLE OR CARRIAGE RETURN**:

Take one of the following actions:

- Type the Model Code for an existing terminal definition and press the **Enter** key. The terminal table you specify will become the model for your terminal definition and the values specified in that table will be the initial values specified in your new terminal table. Because you are creating a terminal table valid values do not include the Model Code you entered for the preceding message.

  If you enter an invalid Model Code, the **install** utility will redisplay this message.

- Press the **Enter** key to start with a generic terminal table. Your new terminal table will be specified with a set of initial values common among terminal manufacturers.

- Type **END** and press the **Enter** key. You will halt the terminal definition procedure and return to the Terminal Menu. If you want to resume the terminal definition procedure, please refer to the section titled *Choose the Modify Terminal Tables Option*.

After you enter a valid value other than **END** the **install** utility will display the following message:

-- **OLD NAME** --> *terminal description*
6. **ENTER TERMINAL NAME** (**20 CHARACTERS MAX**):

terminal description is a description associated with a Model Code. If you entered a Model Code for the preceding message, this field contains a brief terminal description. If you did not enter a Model Code for the preceding message, this field is blank.

Copyright © 2026 Thoroughbred Software International, Inc.

Take one of the following actions:

- Type a description of your terminal and press the **Enter** key. A valid terminal description is 1 through 20 alphanumeric characters long.

  If you enter an invalid terminal description, the **install** utility will redisplay this message.

- Press the **Enter** key to accept the current value of *terminal description*. If the field is blank, you will accept an empty terminal description.

- Type **END** and press the **Enter** key. You will halt the terminal definition procedure and return to the Terminal Menu. If you want to resume the terminal definition procedure. please refer to the section titled *Choose the Modify Terminal Tables Option*.

If you do not specify **END** at this time the install utility will assume that you want to finish the terminal definition procedure. You are not committed to saving or using the terminal definition you create but you are committed to finishing the procedure described in the next few sections.

After you enter a valid value other than **END**, the **install** utility will display the following message:

-- **OLD VALUE** --> *xx*
7. **ENTER TERMINAL BACKSPACE CODE** (**HH**):

The terminal definition procedure continues in the following section.

Specify Common Keystroke Values

Common keystroke sequences include the null character, the backspace character, the escape character, and so on. In this procedure common keystroke sequences do not include the alphanumeric character set because nearly all terminal manufacturers use a standard set of values for these characters. For example, nearly all terminals generate the hexadecimal value **20** when you press the space bar.

The **install** utility displays the following message:

-- OLD VALUE --> *xx*
7. ENTER TERMINAL BACKSPACE CODE (HH):

You can specify a value for the backspace key.

xx is the hexadecimal default. This value is generated when you press the backspace key.

You can take one of the following actions:

- Type a new hexadecimal value and press the **Enter** key. For most terminals a valid value is two hexadecimal characters long.

  If you enter an invalid value the **install** utility will redisplay this message.

- Press the **Enter** key to accept the current value of *xx*.

Copyright © 2026 Thoroughbred Software International, Inc.

After you enter a valid value the **install** utility will display the following message:

-- OLD VALUE --> *xx*
8. ENTER TERMINAL NULL CHARACTER CODE (HH):

You can specify a value for the null character.

xx is the hexadecimal default. The value of the null character is almost always 00.

You can take one of the following actions:

- Type a new hexadecimal value and press the **Enter** key. For most terminals a valid value is two hexadecimal characters long.

  If you enter an invalid value the **install** utility will redisplay this message.

- Press the **Enter** key to accept the current value of *xx*.

After you enter a valid value the **install** utility will display the following message:

-- OLD VALUE --> *xx*
9. ENTER BASIC ESCAPE CODE (HH):

You can specify a value for the escape code that Thoroughbred Basic will recognize and use to invoke routines and so on.

xx is the hexadecimal default. Thoroughbred Basic will regard this value as an escape code when the value is issued from the terminal.

You can take one of the following actions:

- Type a new hexadecimal value and press the **Enter** key. For most terminals a valid value is two hexadecimal characters long.

  If you enter an invalid value the **install** utility will redisplay this message.

- Press the **Enter** key to accept the current value of *xx*.

After you enter a valid value the **install** utility will display the following message:

---- OLD VALUE --> *xx*
10. ENTER TERMINAL ESCAPE CODE (HH):

You can specify a value for the escape code that the terminal will use to invoke terminal features. The previous escape code specification is the escape code that Thoroughbred Basic recognizes. Some terminals may require you to specify the same value for both types of escape code.

xx is the hexadecimal default. This escape code will be used to invoke special terminal features but Thoroughbred Basic does not have to recognize this value as an escape code.

Copyright © 2026 Thoroughbred Software International, Inc.

You can take one of the following actions:

- Type a new hexadecimal value and press the **Enter** key. For most terminals a valid value is two hexadecimal characters long.

  If you enter an invalid value the **install** utility will redisplay this message.

- Press the **Enter** key to accept the current value of *xx*.

After you enter a valid value the **install** utility will display the following message:

---- OLD VALUE ---> *X*
11. ENTER A CHARACTER THAT REPRESENTS AN ESCAPE (X):

You can specify a value to syntactically represent the escape code you specified for the preceding prompt. This value will enable you to code sequences of characters that must begin with an escape.

X is the default. Most terminals require you to specify **E** as the character that signifies an escape code.

You can take one of the following actions:

- Type a new alphanumeric character and press the **Enter** key. A valid value is one character long.

  If you enter an invalid value the **install** utility will redisplay this message.

- Press the **Enter** key to accept the current value of *X*.

After you enter a valid value the **install** utility will display the following message:

---- OLD VALUE ---> { *xx*[*xx*[**. . .**]]|**'NULL'** }
12. ENTER CODE(S) THAT ARE TO BE IGNORED:

Some terminals send codes to the CPU after they complete certain tasks. You may want Thoroughbred Basic to ignore these codes.

xx is a hexadecimal number that represents one character. If more than one character is ignored a hexadecimal string is displayed; for example, if **01**, **02**, **FE**, and **FF** are ignored, **0102FEFF** is displayed.

'NULL' represents an empty list. Thoroughbred Basic does not ignore any character.

You can take one of the following actions:

- Type a new hexadecimal value and press the **Enter** key. If you enter more than one hexadecimal character do not separate the values; for example, if you want Thoroughbred Basic to ignore the **01**, **02**, **FE**, and **FF** characters, specify these four values as **0102FEFF.**

  If you enter an invalid value the **install** utility will redisplay this message.

- Type **'NULL'** and press the **Enter** key. Thoroughbred Basic will not ignore any codes the terminal sends.

Copyright © 2026 Thoroughbred Software International, Inc.

If you enter an invalid value the **install** utility will redisplay this message.

- Press the **Enter** key to accept the current value.

After you enter a valid value the **install** utility will display the following message:

---- OLD VALUE --> { *xx*|'NULL' }
13. ENTER LEADING BLANK REPLACEMENT CHARACTER (HH):

Some terminals require that a code replace the first leading blank character in a series of leading blanks. If Thoroughbred Basic does not recognize this code your applications may lose some leading blanks.

xx is a hexadecimal number that represents one character. This character replaces the first leading blank in a series of leading blanks.

'NULL' represents an empty list. The first leading blank is not replaced.

You can take one of the following actions:

- Type a new hexadecimal value and press the **Enter** key. This character replaces the first leading blank in a series of leading blanks.

  If you enter an invalid value the **install** utility will redisplay this message.

- Type **'NULL'** and press the **Enter** key. The first leading blank in a series of leading blanks is not replaced.

  If you enter an invalid value the **install** utility will redisplay this message.

- Press the **Enter** key to accept the current value.

After you enter a valid value the **install** utility will display the following message:

---- OLD VALUE --> { *editcd*|'NULL' }
14. ENTER RIGHT ARROW CODE:

The terminal definition procedure continues in the following section.

Specify Edit Code Values

Edit codes are generated to execute functions commonly associated with editing, such as insertion, deletion, or movement. Some examples of keys that generate edit codes when pressed are the arrow keys, the Page Down key, and the Home key.

Although some types of edit codes are common from terminal to terminal, there is no standard set of edit codes. Your terminal may not use some of the edit codes you will consider in this part of the terminal definition procedure.

The **install** utility displays the following message:

---- OLD VALUE --> { *editcd*|'NULL' }
14. ENTER RIGHT ARROW CODE:

Copyright © 2026 Thoroughbred Software International, Inc.

This edit code is generated when you press the right arrow key or enter a keystroke sequence that replicates the function of a pressed right arrow key. Most terminal keyboards have a right arrow key.

editcd is a hexadecimal number. This value is generated when the key is pressed and released.

'NULL' represents an empty list. Either no edit code is generated or Thoroughbred Basic ignores the edit code.

You can take one of the following actions:

- Type a new hexadecimal value and press the **Enter** key. This edit code is generated when the relevant key is pressed and released.

  If you enter an invalid value the **install** utility will redisplay this message.

- Type **'NULL'** and press the **Enter** key. Either no edit code is generated or you want Thoroughbred Basic to ignore the edit code.

  If you enter an invalid value the **install** utility will redisplay this message.

- Press the **Enter** key to accept the current value.

After you enter a valid value the **install** utility will display the following message:

---- OLD VALUE --> { *editcd*|'NULL' }
15. ENTER LEFT ARROW CODE:

This edit code is generated when you press the left arrow key or enter a keystroke sequence that replicates the function of a pressed left arrow key. Most terminal keyboards have a left arrow key.

editcd is a hexadecimal number. This value is generated when the key is pressed and released.

'NULL' represents an empty list. Either no edit code is generated or Thoroughbred Basic ignores the edit code.

You can take one of the following actions:

- Type a new hexadecimal value and press the **Enter** key. This edit code is generated when the relevant key is pressed and released.

  If you enter an invalid value the **install** utility will redisplay this message.

- Type **'NULL'** and press the **Enter** key. Either no edit code is generated or you want Thoroughbred Basic to ignore the edit code.

Copyright © 2026 Thoroughbred Software International, Inc.

If you enter an invalid value the **install** utility will redisplay this message.

- Press the **Enter** key to accept the current value.

After you enter a valid value the **install** utility will display the following message:

---- OLD VALUE --> { *editcd*|'NULL' }
16. ENTER DOWN ARROW CODE:

This edit code is generated when you press the down arrow key or enter a keystroke sequence that replicates the function of a pressed down arrow key. Most terminal keyboards have a down arrow key.

editcd is a hexadecimal number. This value is generated when the key is pressed and released.

'NULL' represents an empty list. Either no edit code is generated or Thoroughbred Basic ignores the edit code.

You can take one of the following actions:

- Type a new hexadecimal value and press the **Enter** key. This edit code is generated when the relevant key is pressed and released.

  If you enter an invalid value the **install** utility will redisplay this message.

- Type **'NULL'** and press the **Enter** key. Either no edit code is generated or you want Thoroughbred Basic to ignore the edit code.

  If you enter an invalid value the **install** utility will redisplay this message.

- Press the **Enter** key to accept the current value.

After you enter a valid value the **install** utility will display the following message:

---- OLD VALUE --> { *editcd*|'NULL' }
17. ENTER UP ARROW CODE:

This edit code is generated when you press the up arrow key or enter a keystroke sequence that replicates the function of a pressed up arrow key. Most terminal keyboards have an up arrow key.

editcd is a hexadecimal number. This value is generated when the key is pressed and released.

'NULL' represents an empty list. Either no edit code is generated or Thoroughbred Basic ignores the edit code.

You can take one of the following actions:

- Type a new hexadecimal value and press the **Enter** key. This edit code is generated when the relevant key is pressed and released.

Copyright © 2026 Thoroughbred Software International, Inc.

If you enter an invalid value the **install** utility will redisplay this message.

- Type **'NULL'** and press the **Enter** key. Either no edit code is generated or you want Thoroughbred Basic to ignore the edit code.

  If you enter an invalid value the **install** utility will redisplay this message.

- Press the **Enter** key to accept the current value.

After you enter a valid value the **install** utility will display the following message:

---- OLD VALUE --> { *editcd*|'NULL' }
18. ENTER CHARACTER DELETE CODE:

This edit code is generated when you press the character delete key or enter a keystroke sequence that replicates the function of a pressed character delete key. Most terminal keyboards have a delete key dedicated to character deletion.

editcd is a hexadecimal number. This value is generated when the key is pressed and released.

'NULL' represents an empty list. Either no edit code is generated or Thoroughbred Basic ignores the edit code.

You can take one of the following actions:

- Type a new hexadecimal value and press the **Enter** key. This edit code is generated when the relevant key is pressed and released.

  If you enter an invalid value the **install** utility will redisplay this message.

- Type **'NULL'** and press the **Enter** key. Either no edit code is generated or you want Thoroughbred Basic to ignore the edit code.

  If you enter an invalid value the **install** utility will redisplay this message.

- Press the **Enter** key to accept the current value.

After you enter a valid value the **install** utility will display the following message:

---- OLD VALUE --> { *editcd*|'NULL' }
19. ENTER CHARACTER INSERT CODE:

This edit code is generated when you press the character insert key or enter a keystroke sequence that replicates the function of a pressed character insert key. Many terminal keyboards have an insert key dedicated to character insertion.

editcd is a hexadecimal number. This value is generated when the key is pressed and released.

'NULL' represents an empty list. Either no edit code is generated or Thoroughbred Basic ignores the edit code.

Copyright © 2026 Thoroughbred Software International, Inc.

You can take one of the following actions:

- Type a new hexadecimal value and press the **Enter** key. This edit code is generated when the relevant key is pressed and released.

  If you enter an invalid value the **install** utility will redisplay this message.

- Type **'NULL'** and press the **Enter** key. Either no edit code is generated or you want Thoroughbred Basic to ignore the edit code.

  If you enter an invalid value the **install** utility will redisplay this message.

- Press the **Enter** key to accept the current value.

After you enter a valid value the **install** utility will display the following message:

---- OLD VALUE --> { *editcd*|**'NULL'** }
20. ENTER LINE INSERT CODE:

This edit code is generated when you press the line insert key or enter a keystroke sequence that replicates the function of a pressed line insert key. Most terminal keyboards do not have a key dedicated to line insertion but many terminals provide line insertion functions.

editcd is a hexadecimal number. This value is generated when the key is pressed and released.

'NULL' represents an empty list. Either no edit code is generated or Thoroughbred Basic ignores the edit code.

You can take one of the following actions:

- Type a new hexadecimal value and press the **Enter** key. This edit code is generated when the relevant key is pressed and released.

  If you enter an invalid value the **install** utility will redisplay this message.

- Type **'NULL'** and press the **Enter** key. Either no edit code is generated or you want Thoroughbred Basic to ignore the edit code.

  If you enter an invalid value the **install** utility will redisplay this message.

- Press the **Enter** key to accept the current value.

After you enter a valid value the **install** utility will display the following message:

---- OLD VALUE --> { *editcd*|**'NULL'** }
21. ENTER LINE DELETE CODE:

This edit code is generated when you press the line delete key or enter a keystroke sequence that replicates the function of a pressed line delete key. Most terminal keyboards do not have a key dedicated to line deletion but many terminals provide line deletion functions.

editcd is a hexadecimal number. This value is generated when the key is pressed and released.

Copyright © 2026 Thoroughbred Software International, Inc.

'NULL' represents an empty list. Either no edit code is generated or Thoroughbred Basic ignores the edit code.

You can take one of the following actions:

- Type a new hexadecimal value and press the **Enter** key. This edit code is generated when the relevant key is pressed and released.

  If you enter an invalid value the **install** utility will redisplay this message.

- Type **'NULL'** and press the **Enter** key. Either no edit code is generated or you want Thoroughbred Basic to ignore the edit code.

  If you enter an invalid value the **install** utility will redisplay this message.

- Press the **Enter** key to accept the current value.

After you enter a valid value the **install** utility will display the following message:

---- OLD VALUE --> { *editcd*|'NULL' }
22. ENTER LINE ERASE CODE:

This edit code is generated when you press the line erase key or enter a keystroke sequence that replicates the function of a pressed line erase key. Most terminal keyboards do not have a key dedicated to line erasure but many terminals provide line erasure functions.

editcd is a hexadecimal number. This value is generated when the key is pressed and released.

'NULL' represents an empty list. Either no edit code is generated or Thoroughbred Basic ignores the edit code.

You can take one of the following actions:

- Type a new hexadecimal value and press the **Enter** key. This edit code is generated when the relevant key is pressed and released.

  If you enter an invalid value the **install** utility will redisplay this message.

- Type **'NULL'** and press the **Enter** key. Either no edit code is generated or you want Thoroughbred Basic to ignore the edit code.

  If you enter an invalid value the **install** utility will redisplay this message.

- Press the **Enter** key to accept the current value.

After you enter a valid value the **install** utility will display the following message:

---- OLD VALUE --> { *editcd*|'NULL' }
23. ENTER PAGE ERASE CODE:

Copyright © 2026 Thoroughbred Software International, Inc.

This edit code is generated when you press the page erase key or enter a keystroke sequence that replicates the function of a pressed page erase key. Most terminal keyboards do not have a key dedicated to page erasure but many terminals provide page erasure functions.

editcd is a hexadecimal number. This value is generated when the key is pressed and released.

'NULL' represents an empty list. Either no edit code is generated or Thoroughbred Basic ignores the edit code.

You can take one of the following actions:

- Type a new hexadecimal value and press the **Enter** key. This edit code is generated when the relevant key is pressed and released.

  If you enter an invalid value the **install** utility will redisplay this message.

- Type **'NULL'** and press the **Enter** key. Either no edit code is generated or you want Thoroughbred Basic to ignore the edit code.

  If you enter an invalid value the **install** utility will redisplay this message.

- Press the **Enter** key to accept the current value.

After you enter a valid value the **install** utility will display the following message:

---- OLD VALUE --> { *editcd*|**'NULL'** }
24. ENTER TAB CODE:

This edit code is generated when you press the tab key or enter a keystroke sequence that replicates the function of a pressed tab key. Nearly all terminal keyboards have tab keys.

editcd is a hexadecimal number. This value is generated when the key is pressed and released.

'NULL' represents an empty list. Either no edit code is generated or Thoroughbred Basic ignores the edit code.

You can take one of the following actions:

- Type a new hexadecimal value and press the **Enter** key. This edit code is generated when the relevant key is pressed and released.

  If you enter an invalid value the **install** utility will redisplay this message.

- Type **'NULL'** and press the **Enter** key. Either no edit code is generated or you want Thoroughbred Basic to ignore the edit code.

  If you enter an invalid value the **install** utility will redisplay this message.

- Press the **Enter** key to accept the current value.

Copyright © 2026 Thoroughbred Software International, Inc.

After you enter a valid value the **install** utility will display the following message:

---- OLD VALUE --> { *editcd*|'NULL' }
25. ENTER BACK TAB CODE:

This edit code is generated when you press the back tab key or enter a keystroke sequence that replicates the function of a pressed back tab key. Most terminals do not have back tab keys but most terminals provide the **Shift-Tab** keystroke sequence as a back tab.

editcd is a hexadecimal number. This value is generated when the key is pressed and released.

'NULL' represents an empty list. Either no edit code is generated or Thoroughbred Basic ignores the edit code.

You can take one of the following actions:

- Type a new hexadecimal value and press the **Enter** key. This edit code is generated when the relevant key is pressed and released.

  If you enter an invalid value the **install** utility will redisplay this message.

- Type **'NULL'** and press the **Enter** key. Either no edit code is generated or you want Thoroughbred Basic to ignore the edit code.

  If you enter an invalid value the **install** utility will redisplay this message.

- Press the **Enter** key to accept the current value.

After you enter a valid value the **install** utility will display the following message:

---- OLD VALUE --> { *editcd*|'NULL' }
26. ENTER HOME KEY CODE:

This edit code is generated when you press the home key or enter a keystroke sequence that replicates the function of a pressed home key. Most terminal keyboards have home keys.

editcd is a hexadecimal number. This value is generated when the key is pressed and released.

'NULL' represents an empty list. Either no edit code is generated or Thoroughbred Basic ignores the edit code.

You can take one of the following actions:

- Type a new hexadecimal value and press the **Enter** key. This edit code is generated when the relevant key is pressed and released.

  If you enter an invalid value the **install** utility will redisplay this message.

- Type **'NULL'** and press the **Enter** key. Either no edit code is generated or you want Thoroughbred Basic to ignore the edit code.

  If you enter an invalid value the **install** utility will redisplay this message.

Copyright © 2026 Thoroughbred Software International, Inc.

- Press the **Enter** key to accept the current value.

After you enter a valid value the **install** utility will display the following message:

---- OLD VALUE --> { *editcd*|'NULL' }
27. ENTER CONTROL P CODE:

This edit code is generated when you use the Control P keystroke sequence. Most terminal keyboards do not dedicate a key to this function, but many terminals provide the Control P function and many provide the **Ctrl-P** keystroke sequence to call this function.

editcd is a hexadecimal number. This value is generated when the key is pressed and released.

'NULL' represents an empty list. Either no edit code is generated or Thoroughbred Basic ignores the edit code.

You can take one of the following actions:

- Type a new hexadecimal value and press the **Enter** key. This edit code is generated when the relevant key is pressed and released.

  If you enter an invalid value the **install** utility will redisplay this message.

- Type **'NULL'** and press the **Enter** key. Either no edit code is generated or you want Thoroughbred Basic to ignore the edit code.

  If you enter an invalid value the **install** utility will redisplay this message.

- Press the **Enter** key to accept the current value.

After you enter a valid value the **install** utility will display the following message:

---- OLD VALUE --> { *editcd*|'NULL' }
28. ENTER PAGE DOWN CODE:

This edit code is generated when you press the page down key or enter a keystroke sequence that replicates the function of a pressed page down key. Most terminal keyboards have page down keys.

editcd is a hexadecimal number. This value is generated when the key is pressed and released.

'NULL' represents an empty list. Either no edit code is generated or Thoroughbred Basic ignores the edit code.

You can take one of the following actions:

- Type a new hexadecimal value and press the **Enter** key. This edit code is generated when the relevant key is pressed and released.

Copyright © 2026 Thoroughbred Software International, Inc.

If you enter an invalid value the **install** utility will redisplay this message.

- Type **'NULL'** and press the **Enter** key. Either no edit code is generated or you want Thoroughbred Basic to ignore the edit code.

  If you enter an invalid value the **install** utility will redisplay this message.

- Press the **Enter** key to accept the current value.

After you enter a valid value the **install** utility will display the following message:

---- OLD VALUE --> { *editcd*|**'NULL'** }
29. ENTER PAGE UP CODE:

This edit code is generated when you press the page up key or enter a keystroke sequence that replicates the function of a pressed page up key. Most terminal keyboards have page up keys.

editcd is a hexadecimal number. This value is generated when the key is pressed and released.

'NULL' represents an empty list. Either no edit code is generated or Thoroughbred Basic ignores the edit code.

You can take one of the following actions:

- Type a new hexadecimal value and press the **Enter** key. This edit code is generated when the relevant key is pressed and released.

  If you enter an invalid value the **install** utility will redisplay this message.

- Type **'NULL'** and press the **Enter** key. Either no edit code is generated or you want Thoroughbred Basic to ignore the edit code.

  If you enter an invalid value the **install** utility will redisplay this message.

- Press the **Enter** key to accept the current value.

After you enter a valid value the **install** utility will display the following message:

---- OLD VALUE --> { *editcd*|**'NULL'** }
30. ENTER SCREEN DOWN CODE:

This edit code is generated when you press the screen down key or enter a keystroke sequence that replicates the function of a pressed screen down key. Most terminal keyboards do not have a screen down key but many terminals provide similar scrolling functions.

editcd is a hexadecimal number. This value is generated when the key is pressed and released.

'NULL' represents an empty list. Either no edit code is generated or Thoroughbred Basic ignores the edit code.

Copyright © 2026 Thoroughbred Software International, Inc.

You can take one of the following actions:

- Type a new hexadecimal value and press the **Enter** key. This edit code is generated when the relevant key is pressed and released.

  If you enter an invalid value the **install** utility will redisplay this message.

- Type **'NULL'** and press the **Enter** key. Either no edit code is generated or you want Thoroughbred Basic to ignore the edit code.

  If you enter an invalid value the **install** utility will redisplay this message.

- Press the **Enter** key to accept the current value.

After you enter a valid value the **install** utility will display the following message:

---- OLD VALUE --> { *editcd*|**'NULL'** }
31. ENTER SCREEN UP CODE:

This edit code is generated when you press the screen up key or enter a keystroke sequence that replicates the function of a pressed screen up key. Most terminal keyboards do not have a screen up key but many terminals provide similar scrolling functions.

editcd is a hexadecimal number. This value is generated when the key is pressed and released.

'NULL' represents an empty list. Either no edit code is generated or Thoroughbred Basic ignores the edit code.

You can take one of the following actions:

- Type a new hexadecimal value and press the **Enter** key. This edit code is generated when the relevant key is pressed and released.

  If you enter an invalid value the **install** utility will redisplay this message.

- Type **'NULL'** and press the **Enter** key. Either no edit code is generated or you want Thoroughbred Basic to ignore the edit code.

  If you enter an invalid value the **install** utility will redisplay this message.

- Press the **Enter** key to accept the current value.

Copyright © 2026 Thoroughbred Software International, Inc.

After you enter a valid value the **install** utility will display the following message:

---- OLD VALUE --> { *edit*

|'NULL' }

32. ENTER BOUNDARY DOWN CODE:

This edit code is generated when you press the boundary down key or enter a keystroke sequence that replicates the function of a pressed boundary down key. Most terminal keyboards do not have a boundary down key but many terminals provide similar scrolling functions.

editcd is a hexadecimal number. This value is generated when the key is pressed and released.

'NULL' represents an empty list. Either no edit code is generated or Thoroughbred Basic ignores the edit code.

You can take one of the following actions:

- Type a new hexadecimal value and press the **Enter** key. This edit code is generated when the relevant key is pressed and released.

  If you enter an invalid value the **install** utility will redisplay this message.

- Type **'NULL'** and press the **Enter** key. Either no edit code is generated or you want Thoroughbred Basic to ignore the edit code.

  If you enter an invalid value the **install** utility will redisplay this message.

- Press the **Enter** key to accept the current value.

After you enter a valid value the **install** utility will display the following message:

---- OLD VALUE --> { *editcd*|**'NULL'** }

33. ENTER BOUNDARY UP CODE:

This edit code is generated when you press the boundary up key or enter a keystroke sequence that replicates the function of a pressed boundary up key. Most terminal keyboards do not have a boundary up key but many terminals provide similar scrolling functions.

editcd is a hexadecimal number. This value is generated when the key is pressed and released.

'NULL' represents an empty list. Either no edit code is generated or Thoroughbred Basic ignores the edit code.

You can take one of the following actions:

- Type a new hexadecimal value and press the **Enter** key. This edit code is generated when the relevant key is pressed and released.

  If you enter an invalid value the **install** utility will redisplay this message.

Copyright © 2026 Thoroughbred Software International, Inc.

- Type **'NULL'** and press the **Enter** key. Either no edit code is generated or you want Thoroughbred Basic to ignore the edit code.

  If you enter an invalid value the **install** utility will redisplay this message.

- Press the **Enter** key to accept the current value.

After you enter a valid value the **install** utility will display the following message:

---- OLD VALUE --> *x*
34. ENTER THE NUMBER OF TERMINAL FUNCTION KEYS:

The terminal definition procedure continues in the following section.

Specify Function Key Values

Most terminal keyboards provide at least four function keys, which can perform a variety of tasks. When you press a function key it generates a code, which is sent to the CPU. In this part of the terminal definition procedure, you will specify the number of function keys you want Thoroughbred Basic to recognize. Then you will be placed in a loop so that you can specify the generated code for each function key.

The **install** utility displays the following message:

---- OLD VALUE --> *nn*
34. ENTER THE NUMBER OF TERMINAL FUNCTION KEYS:

nn is the number of function keys on the terminal keyboard. Valid values range from **00** through **99**.

Before you accept or specify the number of function keys you can decide how many of these keys you need:

- You may want Thoroughbred Basic to recognize only a small number of function keys. For example, your keyboard may have 24 function keys but you may want Thoroughbred Basic to recognize only 12 of them. If you specify 12 Thoroughbred Basic will recognize the function keys **1** through **12**.

- You may want Thoroughbred Basic to recognize function keys you do not have. For example, your keyboard may not have function keys, but you may want Thoroughbred Basic to recognize 12 function keys. You can specify 12 function keys. When you enter hexadecimal codes for each function key you can specify codes generated by other keystroke sequences. For example, you can assign the codes generated by the **Ctrl-A** keystroke to function key number **1**.

- You may want Thoroughbred Basic to recognize the complete set of function keys on your terminal keyboard.

You can take one of the following actions:

- Type a new value and press the **Enter** key. Valid values range from **4** through **99**.

  If you enter an invalid value the **install** utility will redisplay this message.

- Press the **Enter** key to accept the current value.

Copyright © 2026 Thoroughbred Software International, Inc.

After you enter a valid value the **install** utility will place you in a loop and display the following message:

------- OLD VALUE --> *fkcode*
34.*nn* ENTER FUNCTION KEY *nn* CODE:

fkcode is a hexadecimal number. This value is generated when the function key is pressed and released.

nn is the function key number. Valid values range from **01** through **99**. Displayed values start at **01** and end with the number of function keys you specified in the previous message.

You can take one of the following actions:

- Type a new hexadecimal value and press the **Enter** key. If you plan to type more than one hexadecimal character do not separate the characters; for example, if pressing the function key generates the **01**, **42**, and **0D** characters, specify these three characters as **01420D**.

  If you enter an invalid value the **install** utility will redisplay this message.

- Press the **Enter** key to accept the current value.

After you enter a valid value the **install** utility will increment the *nn* value and redisplay the message. After you accept or specify values for all of the function keys the **install** utility will display the following message:

---- OLD VALUE --> { Y|N }
35. DOES TERMINAL HAVE CLEAR FOREGROUND (Y/N)?

The terminal definition procedure continues in the following section.

Specify Terminal Display Values

Thoroughbred Basic can use the display capabilities of your terminal to help you produce visually appealing applications. Terminal display values include values that affect how Thoroughbred Basic manages the terminal screen and the cursor.

Reference documentation for your terminal may not explicitly discuss some of the information you will be asked to provide. If the documentation describes the codes associated with keys and the codes associated with terminal capabilities you will be able to enter the necessary information. If the documentation lacks elemental discussion of keys and terminal features you may need to contact the terminal manufacturer for the relevant information.

Copyright © 2026 Thoroughbred Software International, Inc.

The **install** utility displays the following message:

---- OLD VALUE --> { Y|N }
35. DOES TERMINAL HAVE CLEAR FOREGROUND (Y/N)?

Y means that your terminal can remove characters in the foreground from the screen. You can specify this value if your terminal defines the clear foreground (**'CF'**) terminal mnemonic or some analogue. If your terminal does not define this mnemonic you can specify this value if you can determine that your terminal is able to remove characters from the foreground.

N means that your terminal cannot remove characters in the foreground from the screen. In this case, Thoroughbred Basic creates a bitmap to keep track of characters displayed in the foreground. When Thoroughbred Basic clears the screen it uses the information in the bitmap as input to its own clear foreground (**'CF'**) command, which will remove characters displayed in the foreground.

Type **Y** or **N** and press the **Enter** key. The **install** utility will display the following message:

---- OLD VALUE --> *crsrmsk*
36. ENTER CURSOR CONTROL FORMAT MASK (APYLZ):

crsrmsk is short for cursor control format mask. Thoroughbred Basic uses this parameter to position the cursor on the screen. The syntax of the *crsrmsk* parameter is:

{ [**A**[. . .]]**P**[**Y**[. . .]]**L**[**Z**[. . .]] | **'NULL'** }

A represents a leading control character. The leading control character tells the system that cursor-positioning specifications follow. When this value is specified, it is the first value in the cursor control format mask.

Most cursor control format masks require at least one leading control character.

P represents a column value. You can think of this value as a position in a row. For example, if your terminal can display 24 lines and 80 characters on each line, you can say your terminal has 80 columns.

When you specify this value, you will enter the number of the leftmost column and the number of columns your terminal screen can display. Depending on your terminal the **P** specification can precede or follow the **L** specification.

Y represents a control character that follows the **P** specification. This control character tells the system that the column specification is done.

Few terminals require you to specify this value. If you enter this value you may have to specify more than one control character.

L represents a row or line value. You can think of this value as a line on a screen. For example, if your terminal can display 24 lines of text you can say your terminal has 24 rows.

Copyright © 2026 Thoroughbred Software International, Inc.

When you specify this value, you will enter the number of the top row and the number of rows your terminal screen can display. Depending on your terminal the **L** specification can precede or follow the **P** specification.

Z represents a control character that follows the **L** specification. This control character tells the system that the row specification is done.

Few terminals require you to specify this value. If you enter this value you may have to specify more than one control character.

'NULL' means that Thoroughbred Basic cannot position the cursor on the screen. Your application will ignore any Thoroughbred Basic command that places the cursor on the display.

Some examples of cursor control format masks are **APL**, **AALP**, **AAAPYLZZ**, and **'NULL'**. Please refer to your terminal documentation to determine how to specify the mask. Type that specification and press the **Enter** key.

The **install** utility will display a series of messages, numbered **36.***n* where n is a number from **1** through **7**. Message content and message numbering will depend on the cursor control format mask you specify. In order to describe all of the messages you can receive this manual will assume that you entered **AAAPYLZZ**. In that case, the install utility will display the following series of messages numbered **36.1** through **36.7**:

----- OLD VALUE ---> *Acodes*
36.1 VALUE FOR AAA (HH):

Acodes is the leading control character sequence, which is displayed in hexadecimal form. Leading control characters tell the system that cursor-positioning specifications follow.

You can take one of the following actions:

- Type a new hexadecimal value and press the **Enter** key. If you plan to type more than one hexadecimal number do not separate the numbers; for example, if the leading control character sequence is **01**, **42**, and **0D**, specify these three numbers as **01420D**.

  If you enter an invalid value the **install** utility will redisplay this message.

- Press the **Enter** key to accept the current value. The current value must contain the same number of hexadecimal numbers as the new value.

  If you accept an invalid value the **install** utility will redisplay this message.

After you enter a valid value the **install** utility will display the following message:

----- OLD VALUE ---> *Pstart*
36.2 STARTING VALUE FOR P (HH):

Pstart is the number of the first column. You can think of this value as the number of the first or leftmost position in a line of characters displayed on your terminal screen.

Copyright © 2026 Thoroughbred Software International, Inc.

You can take one of the following actions:

- Type a new hexadecimal value and press the **Enter** key. Your terminal may specify its first or leftmost column position with one of the following values:

  00 means that the first column is numbered **0**. If your terminal has 80 columns the columns are numbered from **0** through **79** in decimal format.

  01 means that the first column is numbered **1**. If your terminal has 80 columns the columns are numbered from **1** through **80** in decimal format.

  20 means that you have a space-based terminal. The number 20 is the hexadecimal number that denotes the space character.

  If you enter an invalid value the **install** utility will redisplay this message.

- Press the **Enter** key to accept the current value.

After you enter a valid value the **install** utility will display the following message:

----- OLD VALUE ---> *Pnum*
36.3 NUMBER OF CHARS PER LINE FOR P:

Pnum is the number of columns your terminal can display. You can also think of this as the number of characters can display on one line.

You can take one of the following actions:

- Type a new decimal value and press the **Enter** key.

  If you enter an invalid value the **install** utility will redisplay this message.

- Press the **Enter** key to accept the current value.

After you enter a valid value the **install** utility will display the following message:

----- OLD VALUE ---> *Ycodes*
36.4 VALUE FOR Y (HH):

Ycodes is the hexadecimal control character sequence that follows the **P** specification. This sequence tells the system that the column specification is done.

You can take one of the following actions:

- Type a new hexadecimal value and press the **Enter** key. If you plan to type more than one hexadecimal number do not separate the numbers; for example, if the control character sequence is **01**, **42**, and **0D**, specify these three numbers as **01420D**.

  If you enter an invalid value the **install** utility will redisplay this message.

- Press the **Enter** key to accept the current value. The current value must contain the same number of hexadecimal numbers as the new value.

Copyright © 2026 Thoroughbred Software International, Inc.

If you accept an invalid value the **install** utility will redisplay this message.

After you enter a valid value the **install** utility will display the following message:

----- OLD VALUE ---> *Lstart*
36.5 STARTING VALUE FOR L (HH):

Lstart is the number of the first row. You can think of this value as the number of the first or top line displayed on your terminal screen.

You can take one of the following actions:

- Type a new hexadecimal value and press the **Enter** key. Your terminal may specify its top row position with one of the following values:

  00 means that the first row is numbered **0**. If your terminal has 24 lines the lines are numbered from **0** through **23** in decimal format.

  01 means that the first row is numbered **1**. If your terminal has 24 rows the rows are numbered from **1** through **24** in decimal format.

  20 means that you have a space-based terminal. The number 20 is the hexadecimal number that denotes the space character.

  If you enter an invalid value the **install** utility will redisplay this message.

- Press the **Enter** key to accept the current value.

After you enter a valid value the **install** utility will display the following message:

----- OLD VALUE ---> *Lnum*
36.6 NUMBER OF LINES FOR L:

Lnum is the number of rows or lines your terminal can display.

You can take one of the following actions:

- Type a new decimal value and press the **Enter** key.

  If you enter an invalid value the **install** utility will redisplay this message.

- Press the **Enter** key to accept the current value.

Copyright © 2026 Thoroughbred Software International, Inc.

After you enter a valid value the **install** utility will display the following message:

----- OLD VALUE ---> *Zcodes*
36.7 VALUE FOR ZZ (HH):

Zcodes is the hexadecimal control character sequence that follows the **L** specification. This sequence tells the system that the line specification is done.

You can take one of the following actions:

- Type a new hexadecimal value and press the **Enter** key. If you plan to type more than one hexadecimal number do not separate the numbers; for example, if the control character sequence is **01**, **42**, and **0D**, specify these three numbers as **01420D**.

  If you enter an invalid value the **install** utility will redisplay this message.

- Press the **Enter** key to accept the current value. The current value must contain the same number of hexadecimal numbers as the new value.

  If you accept an invalid value the **install** utility will redisplay this message.

After you enter a valid value the **install** utility will display the following message:

---- OLD VALUE ---> { **Y**|**N** }
37. BINARY FORMAT FOR CURSOR POSITION AND LINE (Y/N) ?

Your answer will determine the format Thoroughbred Basic uses to send your terminal information on how to position the cursor on the screen. The descriptions below refer to the specifications you entered for the messages numbered **36** and **36.***n*.

Y means that Thoroughbred Basic will send your terminal a one-byte binary value to specify the position of the cursor on the screen.

Most terminals that do not require you to specify values for **Y**[**. . .**], which terminates the **P** specification, and **Z**[**. . .**], which terminates the **L** specification, use one-byte binary values to specify cursor position.

N means that Thoroughbred Basic will send cursor position specifications in ASCII format. One byte will specify each digit, line, or column.

Most terminals that require ASCII format also require you to specify values for **Y**[**. . .**], which terminates the **P** specification, and **Z**[**. . .**], which terminates the **L** specification. These terminators are necessary because using the ASCII format will produce positional specifications of variable length.

Type **Y** or **N** and press the **Enter** key. The **install** utility will display the following message:

Copyright © 2026 Thoroughbred Software International, Inc.

---- OLD VALUE --> { *nn* |'NULL' }
38. ENTER NUMBER OF NULLS FOR SCREEN ROLL (1 THROUGH 99):

Many terminals require a small delay after they execute functions that cause the screen to roll. Without such a delay the terminal can lose data sent immediately after a scroll. Thoroughbred Basic can send null characters to a terminal that requires such a delay.

nn is the number of null characters Thoroughbred Basic sends to the terminal to generate delays after scrolling functions are executed.

'NULL' means that Thoroughbred Basic sends no null characters to the terminal after scrolling functions are executed. This value is specified for terminals that do not require delays after scrolling functions are executed.

You can take one of the following actions:

- Type a new decimal value and press the **Enter** key. Valid values range from **1** through **99**. Thoroughbred Basic will send this number of null characters to the terminal to generate delays after scrolling functions are executed.

  If you enter an invalid value the **install** utility will redisplay this message.

- Type **'NULL'** and press the **Enter** key. Thoroughbred Basic will send no null characters to the terminal to generate delays after scrolling functions are executed. Specify this value for terminals that do not require delays after scrolling functions are executed.

- Press the **Enter** key to accept the current value.

After you enter a valid value the **install** utility will display the List of Defined Mnemonics screen:

```
                    LIST OF DEFINED MNEMONICS


BU  BV  CE  CF  CH  CL  CN  CO  CR  CS  DN  DO  EB  EG  EP  ER  ES
EU  FF  G0  G1  G2  G3  G4  G5  G6  G7  G8  G9  GA  GB  GC  GD  GE
GF  LD  LF  LI  NS  RB  RC  RM  SB  SE  SF  SS  TR  VT  WS  YN  A1
A2  A4  A6  A8  BB  BD  BF  BG  BR  VG  BS



39, DEFINE MNEMONIC CODE MM:
```

The screen illustrated above is a sample. If you specified a base terminal table the listings displayed on your screen may differ. If you did not specify a base terminal table, the List of Defined Mnemonics screen will be blank.

Copyright © 2026 Thoroughbred Software International, Inc.

Consider Terminal Mnemonics

This section contains an introduction to Thoroughbred Basic terminal mnemonics and descriptions of all defined terminal mnemonics. If you are not familiar with Thoroughbred Basic terminal mnemonics you may want to read the introduction then refer to the section titled *Specify Terminal Mnemonics*, to specify values for the appropriate mnemonics. If the List of Defined Mnemonics screen is blank, you may want to skim through the list of mnemonics for ideas on what mnemonics you can define, then refer to the section titled *Specify Terminal Mnemonics*.

Introduction to Terminal Mnemonics

Terminal mnemonics are variables that contain codes or characters that can be interpreted by a terminal driver or the Thoroughbred Basic Windows Manager. Use of terminal mnemonics may help speed application development:

- Thoroughbred Basic programmers do not have to remember or look up code sequences when they need to perform operations such as clearing the screen.
- Mnemonics provide naming conventions for actions that can occur on a variety of site terminals.
- Mnemonics can help produce more readable code.

Terminal mnemonics can be used in Thoroughbred Basic directives such as **FINPUT**, **INPUT**, or **PRINT**. In many cases, Thoroughbred Basic programmers can use a mnemonic or the appropriate hexadecimal character sequence to tell the terminal what to do. However, if you plan to use Thoroughbred Basic Windows, you must consider using mnemonics.

The Thoroughbred Basic Windows Manager executes the command specified for the mnemonic within the confines of the active Thoroughbred Basic Window. For example, the **'CS'** (clear screen) mnemonic contains a command to clear all characters from the screen; if a programmer uses this mnemonic the Thoroughbred Basic Windows Manager only clears the active Thoroughbred Basic Window. However, if the programmer chooses to use the command and not the mnemonic the command is sent to the terminal without interpretation; the command clears the entire screen but the Thoroughbred Basic Windows Manager will not be able to determine the current cursor position.

If you plan to use Thoroughbred Basic Windows, please specify the following terminal settings:

- Scroll on
- Wrap off
- 24 line display

In addition, please specify a value for the **'A6'** (wrap off) mnemonic, which is described later in this section. These settings will make it easier for the Thoroughbred Basic Windows Manager to make full use of the display features of your terminal.

The Thoroughbred Basic Windows Manager can only use the mnemonics described in this section. Thoroughbred Basic Windows will ignore any new mnemonics you define. You can specify values for many of the existing mnemonics but the Thoroughbred Basic Windows Manager requires that some of the mnemonics be left alone.

Copyright © 2026 Thoroughbred Software International, Inc.

If you do not plan to use Thoroughbred Basic Windows the applications you develop must perform all screen management and cursor placement functions. However, except for the mnemonics specific to Thoroughbred Basic Windows you can use the mnemonics described in this section. You can also define new mnemonics and specify values for them.

The following list describes Thoroughbred Basic mnemonics. Some terminals cannot perform the functions associated with some mnemonics. When a terminal cannot perform the operation, or if a mnemonic is invalid or undefined, Thoroughbred Basic generates the error code **29**, displayed as **ERR=29**, and returns the error to the program. However, you can turn off error generation by specifying the **'EM'** mnemonic.

Thoroughbred Basic Terminal Mnemonics

The mnemonics **'A1'** through **'A8'** contain commands for terminals that do not follow the ANSI standard. The mnemonic **'A9'** contains a command that specifies how your terminal executes its color routines. The mnemonics **'AA'** through **'AF'** contain commands for terminals that follow the ANSI standard.

'A1' contains the advance escape code sequence for the multi-attribute change command. This sequence precedes the specifications contained in the **'A2'** and **'A3'** mnemonics, which are described below. This is a Thoroughbred Basic Windows attribute mnemonic for terminals that do not follow the ANSI standard.

For more information on Thoroughbred Basic Windows attributes please refer to the description of the **WINDOW ATTR** directive in the Thoroughbred Basic Language Reference.

'A2' contains the number of bytes that specify the "body" size of each attribute change code; in most cases this value is specified as **1** byte. This is a Thoroughbred Basic Windows attribute mnemonic for terminals that do not follow the ANSI standard.

For more information on Thoroughbred Basic Windows attributes please refer to the description of the **WINDOW ATTR** directive in the Thoroughbred Basic Language Reference.

'A3' contains a string of all the values of all the "body" characters ordered from attribute **0** through attribute **15**. This is a Thoroughbred Basic Windows attribute mnemonic for terminals that do not follow the ANSI standard.

For more information on Thoroughbred Basic Windows attributes please refer to the description of the **WINDOW ATTR** directive in the Thoroughbred Basic Language Reference.

'A4' contains the trailing escape code sequence, which follows the "body" specifications contained in the **'A2'** and **'A3'** mnemonics. If the terminal does not require a trailing sequence, you can specify **00**, one null character, as the value of this mnemonic. This is a Thoroughbred Basic Windows attribute mnemonic for terminals that do not follow the ANSI standard.

For more information on Thoroughbred Basic Windows attributes please refer to the description of the **WINDOW ATTR** directive in the Thoroughbred Basic Language Reference.

Copyright © 2026 Thoroughbred Software International, Inc.

'A5' contains the number of defined attribute states; in most cases, this value is **16**. This is a Thoroughbred Basic Windows attribute mnemonic for terminals that do not follow the ANSI standard.

For more information on Thoroughbred Basic Windows attributes please refer to the description of the **WINDOW ATTR** directive in the Thoroughbred Basic Language Reference.

'A6' contains a value that disables the automatic wrapping feature:

- If this mnemonic is defined the Thoroughbred Basic Windows driver assumes that this terminal automatically wraps output at the end of a line. To make full use of Thoroughbred Basic Windows, you can specify any value, **'NULL'** for example, to turn off the automatic wrapping feature.

- If this mnemonic is not defined the Thoroughbred Basic Windows driver assumes that this terminal does not automatically wrap output at the end of each line. You do not have to specify a value for this mnemonic.

This is a Thoroughbred Basic Windows attribute mnemonic for terminals that do not follow the ANSI standard.

For more information on Thoroughbred Basic Windows attributes please refer to the description of the **WINDOW ATTR** directive in the Thoroughbred Basic Language Reference.

'A7' is a mnemonic reserved for Thoroughbred Basic internal use.

'A8' contains a value that specifies that display attributes can occupy physical position on the terminal screen:

- If this mnemonic is defined to any value the Thoroughbred Basic Windows driver assumes that display attributes change mnemonics can occupy a position on the terminal screen. The Wyse 50 and Televideo 950 are terminals that manage display attributes change mnemonics in this way.

- If this mnemonic is not defined the Thoroughbred Basic Windows driver assumes that display attributes change mnemonics do not occupy a position on the terminal screen.

This is a Thoroughbred Basic Windows attribute mnemonic for terminals that do not follow the ANSI standard.

For more information on Thoroughbred Basic Windows attributes please refer to the description of the **WINDOW ATTR** directive in the Thoroughbred Basic Language Reference.

'A9' contains a value that describes how the terminal executes its color routines. You can specify a value that includes at least one of the following bit values:

Copyright © 2026 Thoroughbred Software International, Inc.

00 Your terminal requires two different escape sequences to start color. This is the default. The color mnemonics have the following properties:

KW means start the foreground color sequence.

KX means end the foreground color sequence.

KY means start the background color sequence.

KZ means end the background color sequence.

01 Reverse video cannot work properly with the way your terminal executes its color routines. Thoroughbred Basic simulates reverse video by reversing the foreground and background colors.

02 Color intensity cannot work properly with the way your terminal executes its color routines. Thoroughbred Basic simulates color intensities by changing the color.

04 Your terminal requires four different escape sequences to start color. The color mnemonics have the following properties:

KW means start the foreground color sequence.

KX means start the light foreground color sequence.

KY means start the background color sequence.

KZ means start the light background color sequence.

08 Your terminal requires that the foreground color code and the background color code be included in one escape sequence. The color mnemonics have the following properties:

KW means start the color sequence where the foreground color comes before the background color.

KY means start the color sequence where the background color comes before the foreground color.

KX is the sequence that separates the color codes.

KZ means end the color sequence.

The **'KW'**, **'KX'**, **'KY'**, and **'KZ'** mnemonics have individual entries and descriptions in this section. To specify colors, you can use one of the mnemonics that range from **'K0'** through **'KF'**. To complete color management specifications, you can specify values for those mnemonics as well as for **'A9'**.

For more information on Thoroughbred Basic Windows color attributes please refer to the description of the **WINDOW COLOR** directive in the Thoroughbred Basic Language Reference.

Copyright © 2026 Thoroughbred Software International, Inc.

'AA' contains the advance escape code sequence for the multi-attribute change command. This sequence precedes the specifications contained in the **'AB'** and **'AC'** mnemonics, which are described below. This is a Thoroughbred Basic Windows attribute mnemonic for terminals that follow the ANSI standard.

For more information on Thoroughbred Basic Windows attributes please refer to the description of the **WINDOW ATTR** directive in the Thoroughbred Basic Language Reference.

'AB' contains a string of all the values of all the "body" characters in this order: background, foreground, normal video, reverse video, underline off, underline on, blink off, blink on. Each body code is preceded by one byte that contains a binary number to specify the length of the following body code; in most cases this value is **1** or **2**. This is a Thoroughbred Basic Windows attribute mnemonic for terminals that follow the ANSI standard.

For more information on Thoroughbred Basic Windows attributes please refer to the description of the **WINDOW ATTR** directive in the Thoroughbred Basic Language Reference.

'AC' contains the separator character sequence. In most cases, the separator character is one byte, a **;** (semicolon) for example, that is placed between each attribute change code. This is a Thoroughbred Basic Windows attribute mnemonic for terminals that follow the ANSI standard.

For more information on Thoroughbred Basic Windows attributes please refer to the description of the **WINDOW ATTR** directive in the Thoroughbred Basic Language Reference.

'AD' contains the trailing escape code sequence, which follows the "body" specifications contained in the **'AB'** and **'AC'** mnemonics. If the terminal does not require a trailing sequence specify **00**, one null character, as the value of this mnemonic. This is a Thoroughbred Basic Windows attribute mnemonic for terminals that follow the ANSI standard.

For more information on Thoroughbred Basic Windows attributes please refer to the description of the **WINDOW ATTR** directive in the Thoroughbred Basic Language Reference.

'AE' contains the number of defined attribute states; in most cases, this value is **8**. This is a Thoroughbred Basic Windows attribute mnemonic for terminals that follow the ANSI standard.

For more information on Thoroughbred Basic Windows attributes please refer to the description of the **WINDOW ATTR** directive in the Thoroughbred Basic Language Reference.

'AF' contains the escape code sequence to turn off all attributes. If this terminal feature is available and defined, it can speed some Thoroughbred Basic Window operations. This is a Thoroughbred Basic Windows attribute mnemonic for terminals that follow the ANSI standard.

Copyright © 2026 Thoroughbred Software International, Inc.

For more information on Thoroughbred Basic Windows attributes please refer to the description of the **WINDOW ATTR** directive in the Thoroughbred Basic Language Reference.

Many of the mnemonics named **'B*x*'**, where x is a letter, begin an operation that can be ended by specifying the corresponding **'E*x*'** mnemonic.

'BACKGR' is short for background. This mnemonic can contain a command that enables the next color change command to change the current background color instead of the current foreground color.

'BB' is short for begin blink. This mnemonic can contain a command that causes the characters that follow to flash on and off. In most cases, the flash occurs about once a second.

The **'EB'** (end blink) mnemonic can contain a command that returns your terminal screen to normal video mode.

'BD' is short for begin blink with underline. This mnemonic can contain a command that adds an underscore to the characters that follow and causes all of those characters to flash on and off. In most cases, the flash occurs about once a second.

The **'EB'** (end blink) mnemonic can contain a command that returns your terminal screen to normal video mode.

'BE' is short for begin keyboard echo. This mnemonic contains a command that causes characters typed on the keyboard to display on the terminal screen.

The **'EE'** (end keyboard echo) mnemonic contains a command that disables keyboard echo.

This mnemonic is defined by Thoroughbred Basic Windows. Do not define this mnemonic or specify a value for it.

'BF' is short for begin reverse video in foreground intensity. This mnemonic can contain a command that reverses foreground and background colors for characters that follow the command. Reversed characters and background are displayed in foreground intensity.

The **'ER'** (end reverse video) mnemonic can contain a command that restores the normal video mode.

'BG' is short for begin graphics mode. This mnemonic can contain a command that changes the current character set to the graphics character set. Characters that follow this command are displayed as graphics characters.

The **'EG'** (end graphics mode) mnemonic can contain a command that restores the previous character set.

Copyright © 2026 Thoroughbred Software International, Inc.

For information on graphics characters that can be used to draw boxes, please refer to the descriptions of the **'G*n*'** mnemonics, where *n* is a hexadecimal number from **0** through **F**.

'BI' is short for begin input transparency. This mnemonic contains a command that passes each character to your program without interpretation. The codes and sequences generated by the **Enter** key, function keys, and text editing keys are treated as characters rather than commands.

The **'EI'** (end input transparency) mnemonic contains a command that causes your program to disable input transparency.

This mnemonic is defined by Thoroughbred Basic Windows. Do not define this value or specify a value for it.

'BLACK' contains a command that changes the current foreground color to black. A terminal that does not provide this color will not respond to the command to change color.

'BLUE' contains a command that changes the current foreground color to blue. A terminal that does not provide this color will not respond to the command to change color.

'BM' is short for begin **ERR=29** generation for undefined mnemonics. This mnemonic contains a command that causes a Thoroughbred Basic program to issue the error code **29** when it encounters an undefined or invalid mnemonic.

The **'EM'** (end **ERR=29** generation for undefined mnemonics) mnemonic contains a command that causes a Thoroughbred Basic program to ignore undefined or invalid mnemonics.

This mnemonic is defined by Thoroughbred Basic Windows. Do not define this value or specify a value for it.

'BO' is short for begin output transparency. This mnemonic contains a command that passes each character to your terminal without interpretation. The codes and sequences generated by the **Enter** key, function keys, text editing keys, and mnemonics are treated as characters rather than commands.

The **'EO'** (end output transparency) mnemonic contains a command that causes your terminal to disable output transparency.

This mnemonic is defined by Thoroughbred Basic Windows. Do not define this value or specify a value for it.

'BR' is short for begin reverse video. This mnemonic can contain a command that reverses foreground and background colors for characters that follow the command.

The **'ER'** (end reverse video) mnemonic can contain a command that restores the normal video mode.

'BROWN' contains a command that changes the current foreground color to brown. A terminal that does not provide this color will not respond to the command to change color.

Copyright © 2026 Thoroughbred Software International, Inc.

'BS' is short for backspace. This mnemonic contains a command that backspaces one character position.

'BT' is short for begin type-ahead control. This mnemonic contains a command that causes keyboard input to be placed in a buffer when a user types more characters than a Thoroughbred Basic program can manage at the time. The buffered characters are sent to the program as they are needed. A keyboard buffer enables users to "type ahead" of the program.

The **'ET'** (end type-ahead control) mnemonic can contain a command that disables type-ahead control. The **'CI'** (clear the input buffer) mnemonic can contain a command that removes all characters from the type-ahead buffer for keyboard input.

Thoroughbred Basic defines this mnemonic. Do not define this value or specify a value for it.

'BU' is short for begin underline. This mnemonic can contain a command that adds an underscore to the characters that follow.

The **'EU'** (end underline) mnemonic can contain a command that returns your terminal screen to normal video mode.

'BV' is short for begin blink and reverse video. This mnemonic can contain a command that places the characters that follow in reverse video mode and causes all of those characters to flash on and off. In most cases, the flash occurs about once a second. This mnemonic is like the **'BB'** mnemonic with reverse video added.

The **'EB'** (end blink) mnemonic can contain a command that returns your terminal screen to normal video mode.

Many of the mnemonics named **'C***x***'**, where *x* is a letter, are used to clear characters from some area such as a line or screen.

'CE' is short for clear to end. This mnemonic can contain a command that removes all characters from the cursor position to the end of the screen or Thoroughbred Basic Window.

'CF' is short for clear all characters in foreground intensity. This mnemonic can contain a command that removes all the foreground characters from the screen or Thoroughbred Basic Window.

Because the Thoroughbred Basic Windows Manager defines the **'CF'** mnemonic you can use this mnemonic under Thoroughbred Basic Windows without specifying a value for it.

'CH' is short for move the cursor to home position. This mnemonic can contain a command that moves the cursor to the upper left corner of the screen or Thoroughbred Basic Window. The final position is often described as the coordinate position **(0,0)**.

Copyright © 2026 Thoroughbred Software International, Inc.

'CI' is short for clear the input buffer. This mnemonic can contain a command that removes all characters from the type-ahead buffer for keyboard input. For more information on type-ahead control please refer to the descriptions of the **'BT'** and **'ET'** mnemonics.

Thoroughbred Basic defines this mnemonic. Do not define this value or specify a value for it.

'CL' is short for clear to end of line. This mnemonic can contain a command that removes all characters from the cursor through the end of the line. The line can be displayed on the screen or in a Thoroughbred Basic Window. Cursor position does not change.

The **'DL'** (delete line) mnemonic can contain a command that removes the line that contains the cursor.

'CLI' is short for color in low intensity. This mnemonic can contain a command that causes the next color specified to display in low intensity mode.

'CN' is short for cursor on. This mnemonic can contain a command that makes the cursor visible on the screen or in a Thoroughbred Basic Window. You can use the **'CO'** mnemonic to make the cursor invisible.

'CO' is short for cursor off. This mnemonic can contain a command that makes the cursor invisible on the screen or in a Thoroughbred Basic Window. You can use the **'CN'** mnemonic to make the cursor visible.

'CR' is short for carriage return. This mnemonic can contain a command that issues a **CR** (carriage return) character and appropriately position the cursor.

The **'LF'** (line feed) mnemonic can contain a command that issues the line feed character.

'CS' is short for clear the screen. This mnemonic can contain a command that removes all characters from the screen or Thoroughbred Basic Window and places the cursor in the upper left corner.

'CU' is short for cursor read. This mnemonic provides the current cursor position relative to the Thoroughbred Basic Window. The command returns 2 bytes to your program:

- The first byte contains the binary value of the current cursor row position plus 32.
- The second byte contains the binary value of the current cursor column plus 32.

This mnemonic is defined by Thoroughbred Basic Windows. Do not define this value or specify a value for it.

'CYAN' contains a command that changes the current foreground color to cyan. A terminal that does not provide this color will not respond to the command to change color.

Copyright © 2026 Thoroughbred Software International, Inc.

The mnemonics named **'D*x*'**, where x is a letter, contain commands that perform a variety of functions.

'DC' is short for delete character. This mnemonic contains a command that removes the character in the current cursor position. The characters to the right of the cursor are moved left one character position and a space character is placed in the last position in the line.

For information on how to place a character into a line of text please refer to the description of the **'IC'** (insert character) mnemonic.

This mnemonic is defined by Thoroughbred Basic Windows. Do not define this value or specify a value for it.

'DM' is short for default mode. This mnemonic contains a command that sets some cursor and Thoroughbred Basic Windows specifications to defaults.

- Make the cursor invisible, if available. For more information, please refer to the description of the **'CO'** mnemonic.
- Set the display to normal video.
- Set foreground mode.
- Activate Thoroughbred Basic **ERR=29** processing. For more information, please refer to the description of the **'BM'** mnemonic.
- Activate type-ahead control. For more information, please refer to the description of the **'BT'** mnemonic.
- Activate input echo routines. For more information, please refer to the description of the **'BE'** mnemonic.
- Turn off input transparency. For more information, please refer to the description of the **'EI'** mnemonic.
- Turn off output transparency. For more information, please refer to the description of the **'EO'** mnemonic.
- Turn off the uppercase routines. For more information, please refer to the description of the **'LC'** mnemonic.

This mnemonic is defined by Thoroughbred Basic Windows. Do not define this value or specify a value for it.

'DN' is short for display on. This mnemonic can contain a command that makes the entire screen visible. To turn off the display please refer to the description of the **'DO'** mnemonic.

'DO' is short for display off. This mnemonic can contain a command that makes the entire screen invisible. To turn on the display please refer to the description of the **'DN'** mnemonic.

Copyright © 2026 Thoroughbred Software International, Inc.

Most of the mnemonics named **'E*x*'**, where x is a letter, are designed to finish an operation begun by the corresponding **'B*x*'** mnemonic.

'EB' is short for end blink. This mnemonic can contain a command that causes the characters that follow to display in normal video mode. In most cases this command follows the command specified for the **'BB'**, **'BD'**, or **'BV'** mnemonic.

The **'BB'** (begin blink) mnemonic can contain a command that causes the characters that follow to flash on and off. The **'BD'** (begin blink with underline) mnemonic can contain a command that adds an underscore to the characters that follow and causes all of those characters to blink. The **'BV'** (begin blink and reverse video) mnemonic can contain a command that places the characters that follow in reverse video mode and causes the characters to blink.

'EE' is short for end keyboard echo. This mnemonic contains a command that prevents characters typed on the keyboard from display on the terminal screen.

In most cases this command follows the command specified for the **'BE'** mnemonic. The **'BE'** (begin keyboard echo) mnemonic contains a command that activates keyboard echo.

This mnemonic is defined by Thoroughbred Basic Windows. Do not define this value or specify a value for it.

'EF' is short for end with foreground intensity. This mnemonic can contain a command that causes the command specified for the **'BR'** (begin reverse video) mnemonic to set the intensity to background and the command specified for the **'ER'** (end reverse video) mnemonic to set the intensity to foreground. This is the default.

For more information, please refer to the descriptions of the **'BR'**, **'ER'**, and **'EX'** mnemonics.

'EG' is short for end graphics mode. This mnemonic can contain a command that changes the current character set to the standard character set. Characters that follow this command are displayed as standard characters.

In most cases this command follows the command specified for the **'BG'** (begin graphics mode) mnemonic. The **'BG'** (begin graphics mode) mnemonic can contain a command that changes the current character set to the graphics character set.

'EI' is short for end input transparency. This mnemonic contains a command that causes your system to interpret some of the characters passed to your program. Codes and sequences generated by the **Enter** key, function keys, and text editing keys are treated as commands rather than characters.

In most cases, this command follows the command specified for the **'BI'** (begin input transparency) mnemonic. The **'BI'** (begin input transparency) mnemonic contains a command that passes each character to your program without interpretation.

This mnemonic is defined by Thoroughbred Basic Windows. Do not define this value or specify a value for it.

Copyright © 2026 Thoroughbred Software International, Inc.

'EL' is short for end load. This mnemonic can contain a command that stops the loading of a terminal table to the terminal.

In most cases this command follows the command specified for the **'SL'** (start load) mnemonic. The **'SL'** (start load) mnemonic can contain a command that starts loading a terminal table to a terminal.

'EM' is short for end **ERR=29** generation for undefined mnemonics. This mnemonic contains a command that causes a Thoroughbred Basic program to ignore undefined or invalid mnemonics.

In most cases this command follows the command specified for the **'BM'** mnemonic. The **'BM'** (begin **ERR=29** generation for undefined mnemonics) mnemonic contains a command that causes a Thoroughbred Basic program to issue the error code **29** when it encounters an undefined or invalid mnemonic.

This mnemonic is defined by Thoroughbred Basic Windows. Do not define this value or specify a value for it.

'EO' is short for end output transparency. This mnemonic contains a command that causes your system to interpret some of the characters passed to your terminal. Codes and sequences generated by the **Enter** key, function keys, and text-editing keys are treated as commands rather than characters.

In most cases, this command follows the command specified for the **'BO'** (begin output transparency) mnemonic. The **'BO'** (begin output transparency) mnemonic contains a command that passes each character to your terminal without interpretation.

This mnemonic is defined by Thoroughbred Basic Windows. Do not define this value or specify a value for it.

'EP' is short for expanded print mode. This mnemonic can contain a command that causes characters to display at double their height and width. Many terminals do not support expanded print mode.

In most cases, the end of output to the terminal cancels expanded print mode.

The Thoroughbred Basic Windows Manager does not support this mnemonic. You can use this command only if you are not using Thoroughbred Basic Windows.

'ER' is short for end reverse video. This mnemonic can contain a command that restores the normal video mode. In most cases this command follows the command specified for the **'BR'** or **'BF'** mnemonic.

The **'BR'** (begin reverse video) mnemonic can contain a command that reverses foreground and background colors for characters that follow the command. The **'BF'** (begin reverse video in foreground intensity) mnemonic can contain a command that reverses colors for the characters that follow and displays the characters and background in foreground intensity.

Copyright © 2026 Thoroughbred Software International, Inc.

'ES' is short for the escape character. This mnemonic can contain a command that sends an escape character to the terminal.

Do not use this mnemonic under Thoroughbred Basic Windows.

'ET' is short for end type-ahead control. This command contains a command that disables type-ahead control. When type-ahead control is active keyboard input is placed in a buffer when a user types more characters than a Thoroughbred Basic program can manage at the time.

In most cases this command follows the command specified for the **'BT'** mnemonic. The **'BT'** (begin type-ahead control) mnemonic can contain a command that activates type-ahead control.

Note: The **'CI'** (clear the input buffer) mnemonic can contain a command that removes all characters from the type-ahead buffer for keyboard input.

Thoroughbred Basic defines this mnemonic. Do not define this value or specify a value for it.

'EU' is short for end underline. This mnemonic can contain a command that displays the following characters without adding underscore characters.

In most cases this command follows the command specified for the **'BU'** mnemonic. The **'BU'** mnemonic can contain a command that adds an underscore to the characters that follow.

'EX' is short for end with either foreground and background intensity. This mnemonic can contain a command that causes the commands specified for the **'BR'** (begin reverse video) and **'ER'** (end reverse video) mnemonics to have no effect on intensity when they change reverse video mode.

For more information, please refer to the descriptions of the **'BR'**, **'ER'**, and **'EF'** mnemonics.

The **'FF'** mnemonic can be used to issue a form feed.

'FF' is short for form feed. This mnemonic can contain a command that sends a form feed character sequence:

- If you are running Thoroughbred Basic Windows and no value is specified for **'FF'** the Thoroughbred Basic Windows Manager will issue the command specified for the **'CS'** (clear screen) mnemonic. If the **'CS'** mnemonic is not defined, the Thoroughbred Basic Windows Manager takes no further action.
- If you are not running Thoroughbred Basic Windows this mnemonic is ignored.

The mnemonics that range from **'G0'** through **'GF'** enable you to draw graphics boxes.

'G0' contains a sequence that displays a horizontal line when the terminal is in graphics mode.

Copyright © 2026 Thoroughbred Software International, Inc.

For more information on how to specify graphics mode for your terminal please refer to the description of the **'BG'** (begin graphics mode) mnemonic. For more information on graphics characters please refer to the descriptions of the **'G*n*'** mnemonics, where *n* is a hexadecimal number from **0** through **F**.

'G1' contains a sequence that displays a vertical line when the terminal is in graphics mode.

For more information on how to specify graphics mode for your terminal please refer to the description of the **'BG'** (begin graphics mode) mnemonic. For more information on graphics characters please refer to the descriptions of the **'G*n*'** mnemonics, where *n* is a hexadecimal number from **0** through **F**.

'G2' contains a sequence that displays the upper left corner of a box when the terminal is in graphics mode.

For more information on how to specify graphics mode for your terminal please refer to the description of the **'BG'** (begin graphics mode) mnemonic. For more information on graphics characters please refer to the descriptions of the **'G*n*'** mnemonics, where *n* is a hexadecimal number from **0** through **F**.

'G3' contains a sequence that displays the upper right corner of a box when the terminal is in graphics mode.

For more information on how to specify graphics mode for your terminal please refer to the description of the **'BG'** (begin graphics mode) mnemonic. For more information on graphics characters please refer to the descriptions of the **'G*n*'** mnemonics, where *n* is a hexadecimal number from **0** through **F**.

'G4' contains a sequence that displays the lower left corner of a box when the terminal is in graphics mode.

For more information on how to specify graphics mode for your terminal please refer to the description of the **'BG'** (begin graphics mode) mnemonic. For more information on graphics characters please refer to the descriptions of the **'G*n*'** mnemonics, where *n* is a hexadecimal number from **0** through **F**.

'G5' contains a sequence that displays the lower right corner of a box when the terminal is in graphics mode.

For more information on how to specify graphics mode for your terminal please refer to the description of the **'BG'** (begin graphics mode) mnemonic. For more information on graphics characters please refer to the descriptions of the **'G*n*'** mnemonics, where *n* is a hexadecimal number from **0** through **F**.

'G6' contains a sequence that displays the connect to right bar when the terminal is in graphics mode. A connect to right bar is a vertical bar with a horizontal bar meeting it from the right.

Copyright © 2026 Thoroughbred Software International, Inc.

For more information on how to specify graphics mode for your terminal please refer to the description of the **'BG'** (begin graphics mode) mnemonic. For more information on graphics characters please refer to the descriptions of the **'G*n*'** mnemonics, where *n* is a hexadecimal number from **0** through **F**.

'G7' contains a sequence that displays the connect to left bar when the terminal is in graphics mode. A connect to left bar is a vertical bar with a horizontal bar meeting it from the left.

For more information on how to specify graphics mode for your terminal please refer to the description of the **'BG'** (begin graphics mode) mnemonic. For more information on graphics characters please refer to the descriptions of the **'G*n*'** mnemonics, where *n* is a hexadecimal number from **0** through **F**.

'G8' contains a sequence that displays the connect to lower bar when the terminal is in graphics mode. A connect to lower bar is a horizontal bar with a vertical bar meeting it from below.

For more information on how to specify graphics mode for your terminal please refer to the description of the **'BG'** (begin graphics mode) mnemonic. For more information on graphics characters please refer to the descriptions of the **'G*n*'** mnemonics, where *n* is a hexadecimal number from **0** through **F**.

'G9' contains a sequence that displays the connect to upper bar when the terminal is in graphics mode. A connect to upper bar is a horizontal bar with a vertical bar meeting it from above.

For more information on how to specify graphics mode for your terminal please refer to the description of the **'BG'** (begin graphics mode) mnemonic. For more information on graphics characters please refer to the descriptions of the **'G*n*'** mnemonics, where *n* is a hexadecimal number from **0** through **F**.

'GA' contains a sequence that displays a cross when the terminal is in graphics mode. A cross is a horizontal bar and a vertical bar that cross in the middle.

For more information on how to specify graphics mode for your terminal please refer to the description of the **'BG'** (begin graphics mode) mnemonic. For more information on graphics characters please refer to the descriptions of the **'G*n*'** mnemonics, where *n* is a hexadecimal number from **0** through **F**.

'GB' contains a sequence that displays a highest intensity block when the terminal is in graphics mode.

For more information on how to specify graphics mode for your terminal please refer to the description of the **'BG'** (begin graphics mode) mnemonic. For more information on graphics characters please refer to the descriptions of the **'G*n*'** mnemonics, where *n* is a hexadecimal number from **0** through **F**.

'GC' contains a sequence that displays a middle intensity block when the terminal is in graphics mode.

Copyright © 2026 Thoroughbred Software International, Inc.

For more information on how to specify graphics mode for your terminal please refer to the description of the **'BG'** (begin graphics mode) mnemonic. For more information on graphics characters please refer to the descriptions of the **'G*n*'** mnemonics, where *n* is a hexadecimal number from **0** through **F**.

'GD' contains a sequence that displays a lowest intensity block when in graphics mode.

For more information on how to specify graphics mode for your terminal please refer to the description of the **'BG'** (begin graphics mode) mnemonic. For more information on graphics characters please refer to the descriptions of the **'G*n*'** mnemonics, where *n* is a hexadecimal number from **0** through **F**.

'GE ' contains a sequence that displays a double vertical bar when the terminal is in graphics mode.

For more information on how to specify graphics mode for your terminal please refer to the description of the **'BG'** (begin graphics mode) mnemonic. For more information on graphics characters please refer to the descriptions of the **'G*n*'** mnemonics, where *n* is a hexadecimal number from **0** through **F**.

'GF' contains a sequence that displays a double horizontal bar when the terminal is in graphics mode.

For more information on how to specify graphics mode for your terminal please refer to the description of the **'BG'** (begin graphics mode) mnemonic. For more information on graphics characters please refer to the descriptions of the **'G*n*'** mnemonics, where *n* is a hexadecimal number from **0** through **F**.

'GRAY' contains a command that changes the current foreground color to gray. A terminal that does not provide this color will not respond to the command to change color.

'GREEN' contains a command that changes the current foreground color to green. A terminal that does not provide this color will not respond to the command to change color.

The **'IC'** mnemonic can be used to insert characters.

'IC' is short for insert character. This mnemonic contains a command that moves the characters from the current cursor position to the end of the line one space to the right. A space character is placed in the current cursor position. The character on the end of the line is removed.

For information on how to remove a character from a line of text please refer to the description of the **'DC'** (delete character) mnemonic.

This mnemonic is defined by Thoroughbred Basic Windows. Do not define this value or specify a value for it.

Copyright © 2026 Thoroughbred Software International, Inc.

The mnemonics named **'K*x*'**, where *x* is a letter or hexadecimal number, enable you to specify foreground or background colors. In most cases this is a three-step process. First, you specify the **'KW'** or **'KY'** mnemonic, then one of the mnemonics that range from **'K0'** through **'KF'**, and finish the foreground or background color specification with the **'KX'** or **'KZ'** mnemonic.

'K0' contains the specification for the color black. This specification occupies the middle of a command to begin a foreground or background color. The first part of the sequence is contained in the **'KW'** or **'KY'** mnemonic and the last part of the sequence is contained in the **'KX'** or **'KZ'** mnemonic.

For more information on how your terminal can execute its color routines please refer to the description of the **'A9'** mnemonic. For more information on how to define a foreground or background color please refer to the descriptions of the **'KW'**, **'KX'**, **'KY'**, and **'KZ'** mnemonics.

'K1' contains the specification for the color light blue. This specification occupies the middle of a command to begin a foreground or background color. The first part of the sequence is contained in the **'KW'** or **'KY'** mnemonic and the last part of the sequence is contained in the **'KX'** or **'KZ'** mnemonic.

For more information on how your terminal can execute its color routines please refer to the description of the **'A9'** mnemonic. For more information on how to define a foreground or background color please refer to the descriptions of the **'KW'**, **'KX'**, **'KY'**, and **'KZ'** mnemonics.

'K2' contains the specification for the color light green. This specification occupies the middle of a command to begin a foreground or background color. The first part of the sequence is contained in the **'KW'** or **'KY'** mnemonic and the last part of the sequence is contained in the **'KX'** or **'KZ'** mnemonic.

For more information on how your terminal can execute its color routines please refer to the description of the **'A9'** mnemonic. For more information on how to define a foreground or background color please refer to the descriptions of the **'KW'**, **'KX'**, **'KY'**, and **'KZ'** mnemonics.

'K3' contains the specification for the color light cyan. This specification occupies the middle of a command to begin a foreground or background color. The first part of the sequence is contained in the **'KW'** or **'KY'** mnemonic and the last part of the sequence is contained in the **'KX'** or **'KZ'** mnemonic.

For more information on how your terminal can execute its color routines please refer to the description of the **'A9'** mnemonic. For more information on how to define a foreground or background color please refer to the descriptions of the **'KW'**, **'KX'**, **'KY'**, and **'KZ'** mnemonics.

'K4' contains the specification for the color light red. This specification occupies the middle of a command to begin a foreground or background color. The first part of the sequence is contained in the **'KW'** or **'KY'** mnemonic and the last part of the sequence is contained in the **'KX'** or **'KZ'** mnemonic.

Copyright © 2026 Thoroughbred Software International, Inc.

For more information on how your terminal can execute its color routines please refer to the description of the **'A9'** mnemonic. For more information on how to define a foreground or background color please refer to the descriptions of the **'KW'**, **'KX'**, **'KY'**, and **'KZ'** mnemonics.

'K5' contains the specification for the color light magenta. This specification occupies the middle of a command to begin a foreground or background color. The first part of the sequence is contained in the **'KW'** or **'KY'** mnemonic and the last part of the sequence is contained in the **'KX'** or **'KZ'** mnemonic.

For more information on how your terminal can execute its color routines please refer to the description of the **'A9'** mnemonic. For more information on how to define a foreground or background color please refer to the descriptions of the **'KW'**, **'KX'**, **'KY'**, and **'KZ'** mnemonics.

'K6' contains the specification for the color yellow. This specification occupies the middle of a command to begin a foreground or background color. The first part of the sequence is contained in the **'KW'** or **'KY'** mnemonic and the last part of the sequence is contained in the **'KX'** or **'KZ'** mnemonic.

For more information on how your terminal can execute its color routines please refer to the description of the **'A9'** mnemonic. For more information on how to define a foreground or background color please refer to the descriptions of the **'KW'**, **'KX'**, **'KY'**, and **'KZ'** mnemonics.

'K7' contains the specification for the color light gray. This specification occupies the middle of a command to begin a foreground or background color. The first part of the sequence is contained in the **'KW'** or **'KY'** mnemonic and the last part of the sequence is contained in the **'KX'** or **'KZ'** mnemonic.

For more information on how your terminal can execute its color routines please refer to the description of the **'A9'** mnemonic. For more information on how to define a foreground or background color please refer to the descriptions of the **'KW'**, **'KX'**, **'KY'**, and **'KZ'** mnemonics.

'K8' contains the specification for the color gray. This specification occupies the middle of a command to begin a foreground or background color. The first part of the sequence is contained in the **'KW'** or **'KY'** mnemonic and the last part of the sequence is contained in the **'KX'** or **'KZ'** mnemonic.

For more information on how your terminal can execute its color routines please refer to the description of the **'A9'** mnemonic. For more information on how to define a foreground or background color please refer to the descriptions of the **'KW'**, **'KX'**, **'KY'**, and **'KZ'** mnemonics.

'K9' contains the specification for the color blue. This specification occupies the middle of a command to begin a foreground or background color. The first part of the sequence is contained in the **'KW'** or **'KY'** mnemonic and the last part of the sequence is contained in the **'KX'** or **'KZ'** mnemonic.

Copyright © 2026 Thoroughbred Software International, Inc.

For more information on how your terminal can execute its color routines please refer to the description of the **'A9'** mnemonic. For more information on how to define a foreground or background color please refer to the descriptions of the **'KW'**, **'KX'**, **'KY'**, and **'KZ'** mnemonics.

'KA' contains the specification for the color green. This specification occupies the middle of a command to begin a foreground or background color. The first part of the sequence is contained in the **'KW'** or **'KY'** mnemonic and the last part of the sequence is contained in the **'KX'** or **'KZ'** mnemonic.

For more information on how your terminal can execute its color routines please refer to the description of the **'A9'** mnemonic. For more information on how to define a foreground or background color please refer to the descriptions of the **'KW'**, **'KX'**, **'KY'**, and **'KZ'** mnemonics.

'KB' contains the specification for the color cyan. This specification occupies the middle of a command to begin a foreground or background color. The first part of the sequence is contained in the **'KW'** or **'KY'** mnemonic and the last part of the sequence is contained in the **'KX'** or **'KZ'** mnemonic.

For more information on how your terminal can execute its color routines please refer to the description of the **'A9'** mnemonic. For more information on how to define a foreground or background color please refer to the descriptions of the **'KW'**, **'KX'**, **'KY'**, and **'KZ'** mnemonics.

'KC' contains the specification for the color red. This specification occupies the middle of a command to begin a foreground or background color. The first part of the sequence is contained in the **'KW'** or **'KY'** mnemonic and the last part of the sequence is contained in the **'KX'** or **'KZ'** mnemonic.

For more information on how your terminal can execute its color routines please refer to the description of the **'A9'** mnemonic. For more information on how to define a foreground or background color please refer to the descriptions of the **'KW'**, **'KX'**, **'KY'**, and **'KZ'** mnemonics.

'KD' contains the specification for the color magenta. This specification occupies the middle of a command to begin a foreground or background color. The first part of the sequence is contained in the **'KW'** or **'KY'** mnemonic and the last part of the sequence is contained in the **'KX'** or **'KZ'** mnemonic.

For more information on how your terminal can execute its color routines please refer to the description of the **'A9'** mnemonic. For more information on how to define a foreground or background color please refer to the descriptions of the **'KW'**, **'KX'**, **'KY'**, and **'KZ'** mnemonics.

'KE' contains the specification for the color brown. This specification occupies the middle of a command to begin a foreground or background color. The first part of the sequence is contained in the **'KW'** or **'KY'** mnemonic and the last part of the sequence is contained in the **'KX'** or **'KZ'** mnemonic.

Copyright © 2026 Thoroughbred Software International, Inc.

For more information on how your terminal can execute its color routines please refer to the description of the **'A9'** mnemonic. For more information on how to define a foreground or background color please refer to the descriptions of the **'KW'**, **'KX'**, **'KY'**, and **'KZ'** mnemonics.

'KF' contains the specification for the color white. This specification occupies the middle of a command to begin a foreground or background color. The first part of the sequence is contained in the **'KW'** or **'KY'** mnemonic and the last part of the sequence is contained in the **'KX'** or **'KZ'** mnemonic.

For more information on how your terminal can execute its color routines please refer to the description of the **'A9'** mnemonic. For more information on how to define a foreground or background color please refer to the descriptions of the **'KW'**, **'KX'**, **'KY'**, and **'KZ'** mnemonics.

'KW' contains a value that depends on the value specified for the **'A9'** mnemonic. In most cases, it contains the first part of the character sequence that starts the foreground color. The second part of the sequence is contained in one of the mnemonics that range from **'K0'** through **'KF'** and the last part of the sequence is contained in the **'KX'** mnemonic.

For more information on how your terminal can execute its color routines please refer to the description of the **'A9'** mnemonic. For more information on colors, you can specify please refer to the descriptions of the mnemonics that range from **'K0'** through **'KF'**.

'KX' contains a value that depends on the value specified for the **'A9'** mnemonic. In most cases, it contains the last part of the character sequence that starts the foreground color. The first part of the sequence is contained in the **'KW'** mnemonic. and the middle part of the sequence is contained in one of the mnemonics that range from **'K0'** through **'KF'**.

For more information on how your terminal can execute its color routines please refer to the description of the **'A9'** mnemonic. For more information on colors, you can specify please refer to the descriptions of the mnemonics that range from **'K0'** through **'KF'**.

'KY' contains a value that depends on the value specified for the **'A9'** mnemonic. In most cases, it contains the first part of the character sequence that starts the background color. The second part of the sequence is contained in one of the mnemonics that range from **'K0'** through **'KF'** and the last part of the sequence is contained in the **'KZ'** mnemonic.

For more information on how your terminal can execute its color routines please refer to the description of the **'A9'** mnemonic. For more information on colors, you can specify please refer to the descriptions of the mnemonics that range from **'K0'** through **'KF'**.

Copyright © 2026 Thoroughbred Software International, Inc.

'KZ' contains a value that depends on the value specified for the **'A9'** mnemonic. In most cases, it contains the last part of the character sequence that starts the background color. The first part of the sequence is contained in the **'KY'** mnemonic and the middle part of the sequence is contained in one of the mnemonics that range from **'K0'** through **'KF'**.

For more information on how your terminal can execute its color routines please refer to the description of the **'A9'** mnemonic. For more information on colors, you can specify please refer to the descriptions of the mnemonics that range from **'K0'** through **'KF'**.

Some of the mnemonics named **'L***x***'**, where *x* is a letter or hexadecimal number, enable you to perform operations on individual lines.

'LBLUE' contains a command that changes the current foreground color to light blue. A terminal that does not provide this color will not respond to the command to change color.

'LC' is short for lowercase. This mnemonic contains a command that sends all characters typed in Thoroughbred Basic Console Mode to Thoroughbred Basic without interpretation. Lowercase characters are not converted to uppercase.

The **'UC'** (uppercase) mnemonic contains a command that converts all characters typed in Thoroughbred Basic Console Mode to uppercase.

Thoroughbred Basic defines this mnemonic. Do not define this value or specify a value for it.

'LCYAN' contains a command that changes the current foreground color to light cyan. A terminal that does not provide this color will not respond to the command to change color.

'LD' is short for line delete. This mnemonic can contain a command that removes the line that contains the cursor. The lines below the deleted line are scrolled up one line.

The **'CL'** (clear to end of line) mnemonic can contain a command that removes all the characters from the current cursor position through the end of the line. The **'LI'** (line insert) mnemonic can contain a command that creates a new line on the screen or in the Thoroughbred Basic Window.

'LF' is short for line feed. This mnemonic can contain a command that sends the line feed character sequence. The cursor on the screen or in the Thoroughbred Basic Window moves down one line to the leftmost character position. If needed, Thoroughbred Basic will scroll up to display the line that contains the cursor.

The **'CR'** (carriage return) mnemonic can contain a command that sends the carriage return character.

'LGRAY' contains a command that changes the current foreground color to light gray. A terminal that does not provide this color will not respond to the command to change color.

Copyright © 2026 Thoroughbred Software International, Inc.

'LGREEN' contains a command that changes the current foreground color to light green. A terminal that does not provide this color will not respond to the command to change color.

'LI' is short for line insert. This mnemonic can contain a command that inserts a new line on the screen or into the Thoroughbred Basic Window. The line that contains the cursor and all the lines below are pushed down one line, the new line is filled with space characters, and the cursor is placed on the new line.

The **'LD'** (line delete) mnemonic can contain a command that removes the line that contains the cursor from the screen or the Thoroughbred Basic Window.

'LMAGENTA' contains a command that changes the current foreground color to light magenta. A terminal that does not provide this color will not respond to the command to change color.

'LRED' contains a command that changes the current foreground color to light red. A terminal that does not provide this color will not respond to the command to change color.

The mnemonics named **'M*x*'**, where *x* is a letter, enable you to perform a variety of functions.

'MAGENTA' contains a command that changes the current foreground color to magenta. A terminal that does not provide this color will not respond to the command to change color.

'MB' Mouse Begin will turn on the mouse.

'MD' Mouse Scroll Down visual. Developer defined terminal table mnemonic for OPENworkshop/Dictionary-IV only. The defined escape sequence will be printed in the bottom border of a BASIC window indicating that a click in this region will perform a Scroll Down function.

'ME' Mouse End will turn off the mouse.

'MH' Mouse Home visual. Developer defined terminal table mnemonic for OPENworkshop/Dictionary-IV only. The defined escape sequence will be in the upper left corner border of a BASIC window indicating that a click in this region will perform a Home function.

'ML' Mouse Tab Left visual. Developer defined terminal table mnemonic for OPENworkshop/Dictionary-IV only. The defined escape sequence will be printed left border of a BASIC window indicating that a click in this region will perform a Tab Left (**Back-Tab**) function.

'MN' is short for mapping on. This mnemonic contains a command that causes output sent to the terminal is processed by the Thoroughbred Basic Windows Manager, which updates its image of the screen in memory. This is the default for terminals that run under Thoroughbred Basic Windows.

Copyright © 2026 Thoroughbred Software International, Inc.

The **'MO'** (mapping off) mnemonic contains a command that causes the Thoroughbred Basic Windows Manager to process output to the terminal without updating its image of the screen in memory.

This mnemonic is defined by Thoroughbred Basic Windows. Do not define this value or specify a value for it.

'MO' is short for mapping off. This mnemonic contains a command that causes the Thoroughbred Basic Windows Manager to process output to the terminal without updating its image of the screen in memory. You can use this mnemonic to execute terminal routines, such as loading a Status Line, without affecting the rest of the display.

Ordinarily, Thoroughbred Basic Windows uses the **'CS'** (clear screen) to clear the current Thoroughbred Basic Window. If the **'CS'** mnemonic is issued after the **'MO'** mnemonic, the whole screen is cleared. You can use the Thoroughbred Basic **WINDOW REFRESH** directive or the **'RS'** (refresh screen) mnemonic to restore the screen as it appeared before the **'MO'** mnemonic was issued. For more information on the **WINDOW REFRESH** directive please refer to the Thoroughbred Basic Language Reference.

The **'MN'** (mapping on) mnemonic contains a command that causes output sent to the terminal is processed by the Thoroughbred Basic Windows Manager, which updates its image of the screen in memory.

This mnemonic is defined by Thoroughbred Basic Windows. Do not define this value or specify a value for it.

Thoroughbred Basic Windows defines this mnemonic. Do not define this value or specify a value for it.

'MR' Mouse Tab Right visual. Developer defined terminal table mnemonic for OPENworkshop/Dictionary-IV only. The defined escape sequence will be printed right border of a BASIC window indicating that a click in this region will perform a Tab Right (**Tab**) function.

'MU' Mouse Scroll Up visual. Developer defined terminal table mnemonic for OPENworkshop/Dictionary-IV only. The defined escape sequence will be printed top border of a BASIC window indicating that a click in this region will perform a Scroll Up function.

'MX' Mouse Exit visual. Developer defined terminal table mnemonic for OPENworkshop/Dictionary-IV only. The defined escape sequence will be printed upper right corner border of a BASIC window indicating that a click in this region will perform a **F4** (Exit) function.

The mnemonics named **'O*x*',** where x is a letter, enable you to perform a variety of functions.

TbredComm opens external Window files such as image files, Word documents, Excel spreadsheets, etc. The file will be opened with the default application defined by the file extension. For example, if .jpg files are associated with a browser, that browser will be used to open all .jpg image files.

Copyright © 2026 Thoroughbred Software International, Inc.

'OB' Begin Open.

'OE' End Open.

Used with the PRINT Directive. For example:

```
PRINT 'OB', "file-name", 'OE'
```

If the path to the file is not defined in the path variable you must supply the full path name.

The mnemonics named **'P***x***'**, where *x* is a letter, enable you to perform a variety of functions.

'PB' is short for print buffer. This mnemonic contains a command that transmits the contents of the print buffer, then empties it. If the print buffer is already empty, Thoroughbred Basic issues **ERR=29**.

Do not define this mnemonic in a TCONFIG*x* file.

'PE' is short for print end. This mnemonic contains a command that issues the print end character sequence for the terminal device on this channel. In most cases; these are the codes for transparent print end.

The **'PS'** (print start) mnemonic contains a command that issues the print start character sequence for the terminal device on this channel.

'POP' contains a command that deletes the active Thoroughbred Basic Window and refreshes the screen.

In most cases, this command, which performs the same operations as the Thoroughbred Basic **WINDOW POP** directive, is used in Thoroughbred Basic **PRINT** statements. For more information on **WINDOW POP** and **PRINT** please refer to the Thoroughbred Basic Language Reference.

The **'PUSH'** mnemonic contains a command that creates a new Thoroughbred Basic Window, which has attributes identical to the active Thoroughbred Basic Window, and places the cursor in the new Thoroughbred Basic Window.

This mnemonic is defined by Thoroughbred Basic Windows. Do not define this value or specify a value for it.

'PS' is short for print start. This mnemonic contains a command that issues the print start character sequence for the terminal device on this channel. In most cases, these are the codes for Transparent Print Start.

The **'PE'** (print end) mnemonic contains a command that issues the print end character sequence for the terminal device on this channel.

'PUSH' contains a command that creates a duplicate of the active Thoroughbred Basic Window. The new Thoroughbred Basic Window acquires all the attributes of the original Thoroughbred Basic Window. The cursor is placed in the new Thoroughbred Basic Window.

Copyright © 2026 Thoroughbred Software International, Inc.

In most cases, this command, which performs the same operations as the Thoroughbred Basic **WINDOW PUSH** directive, is used in Thoroughbred Basic **PRINT** statements. For more information on **WINDOW PUSH** and **PRINT** please refer to the Thoroughbred Basic Language Reference.

The **'POP'** mnemonic contains a command that deletes the active Thoroughbred Basic Window and refreshes the screen.

This mnemonic is defined by Thoroughbred Basic Windows. Do not define this value or specify a value for it.

Some of the mnemonics named **'R***x***'**, where *x* is a letter, enable you to read displayed characters and return them to your program.

'RB' is short for ring the bell. This mnemonic can contain a command that rings the terminal bell.

'RED' contains a command that changes the current foreground color to red. A terminal that does not provide this color will not respond to the command to change color.

'RL' is short for read line. This mnemonic can contain a command that returns the characters on the line that contains the cursor.

This mnemonic is defined by Thoroughbred Basic Windows. Do not define this value or specify a value for it.

'RP' is short for read page. This mnemonic can contain a command that returns all of the characters from the one that occupies the cursor position through the character that occupies the last position in the Thoroughbred Basic Window.

This mnemonic is defined by Thoroughbred Basic Windows. Do not define this value or specify a value for it.

'RS' is short for refresh screen. This mnemonic can contain a command that restores the screen according to the map maintained by the Thoroughbred Basic Windows Manager.

This command is identical to the Thoroughbred Basic **WINDOW REFRESH** directive. For more information on **WINDOW REFRESH** please refer to the Thoroughbred Basic Language Reference.

In some cases, this command follows the command specified for the **'MO'** (mapping off) mnemonic. For more information, please refer to the description of the **'MO'** mnemonic.

This mnemonic is defined by Thoroughbred Basic Windows. Do not define this value or specify a value for it.

Copyright © 2026 Thoroughbred Software International, Inc.

The mnemonics named **'S***x***'**, where *x* is a letter, enable you to perform a variety of functions.

'SB' is short for set to background. This mnemonic can contain a command that causes the data that follows to display on the screen or in the Thoroughbred Basic Window in background intensity.

The **'SF'** mnemonic can contain a command that causes the data that follows to display in foreground intensity.

'SF' is short for set to foreground. This mnemonic can contain a command that causes the data that follows to display on the screen or in the Thoroughbred Basic Window in foreground intensity.

The **'SB'** mnemonic can contain a command that causes the data that follows to display in background intensity.

'SL' is short for start load. This mnemonic can contain a command that begins loading a terminal table to the terminal.

The **'EL'** (end load) mnemonic can contain a command that stops the loading of a terminal table to a terminal.

'SWAP' contains a command that makes the previously active Thoroughbred Basic Window active. You can use this mnemonic to move back and forth between two Thoroughbred Basic Windows.

In most cases, this command, which performs the same operations as the Thoroughbred Basic **WINDOW SWAP** directive, is used in Thoroughbred Basic **PRINT** statements. For more information on **WINDOW SWAP** and **PRINT** please refer to the Thoroughbred Basic Language Reference.

This mnemonic is defined by Thoroughbred Basic Windows. Do not define this value or specify a value for it.

The **'TR'** mnemonic enables you to read all the characters in a Thoroughbred Basic Window.

'TR' is short for terminal read. This mnemonic contains a command that reads the active Thoroughbred Basic Window from top to bottom and left to right and returns its contents as a character string.

This mnemonic is defined by Thoroughbred Basic Windows. Do not define this value or specify a value for it.

The **'UC'** mnemonic enables Thoroughbred Basic to treat all characters as uppercase characters.

'UC' is short for uppercase. This mnemonic contains a command that converts all characters typed in Thoroughbred Basic Console Mode to uppercase before sending them to Thoroughbred Basic.

The **'LC'** (lowercase) mnemonic contains a command that sends all characters typed in Thoroughbred Basic Console Mode to Thoroughbred Basic without interpretation.

Copyright © 2026 Thoroughbred Software International, Inc.

Thoroughbred Basic defines this mnemonic. Do not define this value or specify a value for it.

The **'VT'** mnemonic enables you to use a vertical tab on your terminal screen.

'VT' is short for vertical tab. This mnemonic can contain a command that moves the output position one vertical tab from the current line. In most cases, the specified value is the character sequence that moves the cursor up one line.

If no value is specified for this mnemonic the Thoroughbred Basic **WINDOW CREATE** directive option **PAINTMODE=CIRCLEIN** is replaced by **PAINTMODE=MIDDLEOUT**. For more information on **WINDOW CREATE** and its **PAINTMODE=** option please refer to the Thoroughbred Basic Language Reference.

Some of the mnemonics named **'W***x***'**, where *x* is a letter, enable you to perform operations on Thoroughbred Basic Windows.

'WC' is short for windows clear. This mnemonic contains a command that removes all the Thoroughbred Basic Windows, except for the base Thoroughbred Basic Window, and clears the screen.

This mnemonic is defined by Thoroughbred Basic Windows. Do not define this value or specify a value for it.

'WHITE' contains a command that changes the current foreground color to white. A terminal that does not provide this color will not respond to the command to change color.

'WN' is short for Thoroughbred Basic Windows on. This mnemonic can contain a command that restores Thoroughbred Basic Windows to the status and conditions that were current before the command specified for the **'WO'** (Thoroughbred Basic Windows off) mnemonic was issued.

This mnemonic is defined by Thoroughbred Basic Windows. Do not define this value or specify a value for it.

'WO' is short for Thoroughbred Basic Windows off. This mnemonic contains a command that causes following commands to refer to the base Thoroughbred Basic Window, which is the full screen. You can use this command to place data on the full screen without having to change current Thoroughbred Basic Window status or stack order.

No Thoroughbred Basic **WINDOW** directives or **WIN** functions can be issued until the command specified for the **'WN'** (Thoroughbred Basic Windows on) is issued. The **'WN'** mnemonic contains a command that returns the terminal to Thoroughbred Basic Windows mode.

This mnemonic is defined by Thoroughbred Basic Windows. Do not define this value or specify a value for it.

Copyright © 2026 Thoroughbred Software International, Inc.

The **'YELLOW'** mnemonic enables you to specify yellow as the foreground color.

'YELLOW' contains a command that changes the current foreground color to yellow. A terminal that does not provide this color will not respond to the command to change color.

Specify Terminal Mnemonics

Thoroughbred Basic provides a set of terminal mnemonics to speed application development. Terminal mnemonics are variables that contain codes or characters that can be interpreted by a terminal driver or the Thoroughbred Basic Windows Manager. In this part of the terminal definition procedure you will be placed in a loop where you can specify values for terminal mnemonics or define your own mnemonics.

The **install** utility displays the List of Defined Mnemonics screen:

```
                    LIST OF DEFINED MNEMONICS


BU  BV  CE  CF  CH  CL  CN  CO  CR  CS  DN  DO  EB  EG  EP  ER  ES
EU  FF  G0  G1  G2  G3  G4  G5  G6  G7  G8  G9  GA  GB  GC  GD  GE
GF  LD  LF  LI  NS  RB  RC  RM  SB  SE  SF  SS  TR  VT  WS  YN  A1
A2  A4  A6  A8  BB  BD  BF  BG  BR  VG  BS



39, DEFINE MNEMONIC CODE MM:
```

The screen illustrated above is a sample. If you specified a base terminal table the listings displayed on your screen may differ. If you did not specify a base terminal table, the List of Defined Mnemonics screen will be blank.

You must enter a valid value in the following field:

39. ENTER MNEMONIC CODE MM:

This message begins a loop. The following actions are valid:

- To specify values for existing mnemonics you can press the **Enter** key. The following message will display:

  ------ **NEXT MNEMONIC** --> *XX*

  XX is the first mnemonic on the LIST OF DISPLAYED MNEMONICS screen. After you specify values for a defined mnemonic, that mnemonic is placed at the end of the list. For more information on this terminal mnemonic, you can refer to its description in the section titled *Thoroughbred Basic Terminal Mnemonics*.

- To define a new terminal mnemonic, you can type *XX* and press the **Enter** key. Valid values for *XX* are two alphanumeric characters. To make sure that you do not specify a mnemonic that already exists refer to the list of terminal mnemonics in the section titled *Consider Terminal Mnemonics*.

Copyright © 2026 Thoroughbred Software International, Inc.

- To redisplay the List of Defined Mnemonics screen you can type **TABLE** and press the **Enter** key. The mnemonics for which you have specified values and mnemonics you have defined will display at the end of the list.

- To stop specifying values for existing mnemonics or defining new mnemonics you can type **END** and press the **Enter** key. The install utility will display the following message:

40. SAVE NEW TERMINAL TABLE (Y/N)? To continue the terminal definition procedure, please refer to the section titled *Save the terminal definition*.

After you press the **Enter** key, or type a new two-character mnemonic then press the **Enter** key, the **install** utility will display the following message:

----- OLD VALUE --> [*value*]
39.1 ENTER CODE TO BE TRANSMITTED TO TERMINAL:

value is the current value specified for the terminal mnemonic. If you are defining a new mnemonic, no value is displayed.

You can use one of the following valid values to specify the action you want the terminal mnemonic to perform:

$*nn*[*nn*[**. . .**]] represents a hexadecimal value:

$ specifies that a hexadecimal value follows.

nn is a two-character hexadecimal value such as **01** or **FE**.

Examples of valid specifications include **$01**, **$1B31**, and **$1BFE91**. Valid values must contain an even number of hexadecimal numbers.

K*Ex*[*x*[**. . .**]] represents a keyboard string value:

K specifies that a keyboard character value follows.

E is the escape code. Most terminals require you to specify **E** as the character that signifies an escape code. You specified this value at prompt number **11**, which is described in the section titled *Specify Common Keystroke Values*.

x is an alphanumeric character.

Examples of valid specifications include **KE1**, **KEr**, and **KE.0**.

NULL means that no codes are sent. Thoroughbred Basic will ignore this terminal mnemonic. You can use this value to disable a mnemonic such as **'FF'** (form feed), which is normally defined for printers but not terminals.

DELETE means that the terminal mnemonic will be deleted from the terminal definition.

Copyright © 2026 Thoroughbred Software International, Inc.

After you enter a valid value the **install** utility will display the following message:

----- OLD VALUE ---> *nn*
39.2 ENTER NUMBER OF NULLS TO TRANSMIT AFTER CODE:

nn is the number of null characters sent to the terminal after the command contained in a terminal mnemonic is executed.

Some terminals require a small delay after they execute certain functions. Thoroughbred Basic can send null characters to a terminal that requires such a delay. Valid values range from **0** through **99**.

After you enter a valid value the **install** utility will display the following message:

----- OLD VALUE ---> *n*
39.3 ENTER CURSOR UPDATE MODE:

n is the mode specification, which specifies how to update and position the cursor after the command contained in a terminal mnemonic is executed.

To reposition the cursor after the command in the terminal mnemonic is executed you can specify one of the following values:

0 means that the cursor position will not change.

1 means the cursor will move to the first position in the next line. If the cursor is on the last displayed line, the screen will roll up to display the line that contains the cursor.

2 means the cursor will move down one line and, if possible, maintain the current line position. If the cursor is on the last displayed line, the screen will roll up to display the line that contains the cursor.

3 means the cursor will move up one line and, if possible, maintain the current line position. If the cursor is on the first displayed line, the screen will roll down to display the line that contains the cursor.

4 means the cursor will move backward one character. If the cursor occupies the first position in a line it will move to the last character in the line above. If the cursor occupies the first position on the first line Thoroughbred Basic will ignore this specification.

5 means the cursor will move to the first position in the next line. If the cursor is on the last displayed line, the cursor will move to the first position in the first displayed line.

6 means the cursor will move down one line and, if possible, maintain the current line position. If the cursor is on the last displayed line, the cursor will move to the first displayed line.

7 means the cursor will move up one line and, if possible, maintain the current line position. If the cursor is on the first displayed line, the cursor will move to the last displayed line.

8 means the cursor will move backward one character. If the cursor occupies the first position in a line it will move to the last character in the line above. If the cursor occupies the first position on the first line it will move to the last character on the last line.

9 means the cursor will move to the first position of the line that currently contains the cursor.

Copyright © 2026 Thoroughbred Software International, Inc.

A means the cursor will move backward one character. If the cursor occupies the first position in a line Thoroughbred Basic will ignore this specification.

B means the cursor will move to the first position in the first line.

After you enter a valid mode number the **install** utility will display the following message:

----- OLD VALUE --> *n*
39.4 ENTER SPECIAL EDIT CODE:

n is the special edit code specification, which specifies how to update the screen or Thoroughbred Basic Window after the command contained in a terminal mnemonic is executed.

If your terminal cannot clear the foreground, you may want the terminal to perform an additional operation to update the screen or Thoroughbred Basic Window. You can specify one of the following valid values:

0 means that no special edit is required.

1 means clear the screen.

2 means clear characters from the line.

3 means delete the line.

4 means insert a blank line.

5 means roll up the screen.

6 means clear the foreground.

7 means roll down the screen.

After you enter a valid special edit code number the **install** utility will display the following message:

----- OLD VALUE --> *n*
39.5 ENTER FOREGROUND/BACKGROUND CODE:

n is the foreground or background code specification.

To specify how the terminal mnemonic affects terminal status you can specify or accept one of the following valid values:

0 means that the terminal mnemonic does not affect terminal status. This is the default.

1 means that the terminal is placed in foreground mode.

2 means that the terminal is placed in background mode.

After you enter a valid special edit code number the **install** utility will return you to prompt number **39**, which is described at the beginning of this section. From that prompt you can continue to specify values for existing terminal mnemonics, define new mnemonics, or exit the mnemonic definition loop. If you choose to exit the loop, please go to the following section to continue the terminal definition procedure.

Copyright © 2026 Thoroughbred Software International, Inc.

Save the Terminal Definition

After you have specified or accepted values for existing terminal mnemonics, or defined new terminal mnemonics, the terminal definition is complete. The **install** utility displays the following message:

40. SAVE NEW TERMINAL TABLE (Y/N)?

Y means the install utility will save the new terminal definition.

N means the terminal definition is not saved. The install utility will return you to the Terminal Menu. You can take one of the following actions:

- If you plan to create a terminal definition, please refer to the section titled *Choose the Modify Terminal Tables Option*.
- If you plan to stop creating a terminal definition, please refer to the section titled *End the Terminal Definition Procedure*.

To save the terminal definition type **Y** and press the **Enter** key. The **install** utility will display the following message set:

GENERATING TERMINAL CONTROL TABLE

FLAG WORD
POSITION PARAMETERS
SCREEN SIZES
SPECIAL CHARACTERS
CURSOR MASK
IGNORE CHARACTERS
FUNCTION KEYS
MNEMONICS

TERMINAL CONTROL TABLE *NAME* **SUCCESSFULLY GENERATED**

Press <Return> to continue

Press the **Enter** key. The **install** utility will display the following message set:

TERMINAL TABLE *NAME* **PROPERLY SAVED**

Press any key to continue.

Copyright © 2026 Thoroughbred Software International, Inc.

Press the **Enter** key. The install utility will display the Terminal Menu:

```
1. MODIFY TERMINAL TABLES
2. MODIFY TERMINAL/MODEL CODE CONFIGURATION
3. LOAD TABLE INTO TERMINAL


2. SELECT OPTION (1, 2, OR 3):
```

To continue the terminal definition procedure, please go to the following section.

Choose the Model Code Configuration Option

Thoroughbred Basic defines terminal IDs, which are also called task IDs, to distinguish one terminal from another. In a multi-user environment, user tasks must be kept separate and distinct to avoid data and program corruption. To help avoid these problems, and to make sure Thoroughbred Basic programmers and users use the appropriate terminal definition, you can associate a task ID with a particular type of terminal.

The **install** utility displays the Terminal Menu:

```
1. MODIFY TERMINAL TABLES
2. MODIFY TERMINAL/MODEL CODE CONFIGURATION
3. LOAD TABLE INTO TERMINAL


2. SELECT OPTION (1, 2, OR 3):
```

You must enter a valid value in the following field:

2. **SELECT OPTION** (**1**, **2**, **OR 3**):

Copyright © 2026 Thoroughbred Software International, Inc.

To associate your terminal ID with the new terminal table, type **2** and press the **Enter** key. The **install** utility will display the Terminal/Model Codes screen:

```
              TERMINAL/MODEL CODES

T0 LMC70E   LINK MC-70, PCKEYB    Tm W60E     WY60,PCKEYB,80C,WIN
T1 LMC70E   LINK MC-70, PCKEYB    Tn W60E     WY60,PCKEYB,80C,WIN
T2 LMC70E   LINK MC-70, PCKEYB    To LMC70S   LINK,MC-70,STANDARD
T3 LMC70E   LINK MC-70, PCKEYB    Tp W60E     WY60,PCKEYB,80C,WIN
                                  .
                                  .
                                  .
(CR) FOR MORE OR END TO SELECT:
                                  .
                                  .
                                  .

                    THIS TERMINAL IS T0


     22. ENTER TERMINAL ID:
```

The list of terminals and model codes may occupy more than one screen. Take one of the following actions:

- To scroll down through the list, press the **Enter** key. The **THIS TERMINAL IS** *XX* message is displayed at the bottom of the list.
- To specify a terminal ID without viewing the list, type **END** and press the **Enter** key. The **THIS TERMINAL IS** *XX* message is displayed.

You must enter a valid value in the following field:

22. ENTER TERMINAL ID:

The **install** utility places you in a loop that begins and ends with this message. You can take one of the following actions:

- If you created a terminal definition for the terminal, you are currently using you can type the terminal ID displayed in the **THIS TERMINAL IS** *XX* message. On the sample screen illustrated above the displayed terminal ID is **T0**.
- If you created a terminal definition for a terminal, you are not currently using you can select and type one of the terminal IDs that is not displayed in the **THIS TERMINAL IS** *XX* message.
- If you have created a terminal definition for all or most of your site terminals you can type **ALL**.

NOTE: The **ALL** command can only associate a terminal table with the listed task IDs. The Terminal/Model Codes screen contains a limited number of task IDs. If you need to specify more task IDs please refer to the section titled *How to Establish All Site Terminals*.

Copyright © 2026 Thoroughbred Software International, Inc.

- When you are done associating terminal IDs with terminal tables you can type **END**. The **install** utility will return you to the Terminal Menu. To continue the terminal definition procedure, please go the following section.

- If you want to redisplay the list of task IDs and their associated terminal tables you can type **TABLE**.

To associate a task ID with a terminal table, type the task ID or **ALL** and press the **Enter** key. The **install** utility diverges slightly at this point:

If you specified a listed terminal ID, such as **T0**, the **install** utility will display the following message:

23. DELETE (Y/N):

Y means you want to delete the task ID from the list. The **install** utility will return you to the preceding message, which asks you to enter a terminal ID.

N means you want to specify a new terminal table that will be associated with the task ID.

END means you want to start over. The **install** utility will return you to the message numbered **22**, which asks you to enter a terminal ID.

To associate a terminal table with a task ID, type **N** and press the **Enter** key.

If you specified **ALL**, if you specified a new terminal ID, or if you specified a listed terminal ID and specified **N** for the message above, the **install** utility will display the following message:

24. ENTER MODEL CODE (8 CHARACTERS MAX):

In the section titled *Begin to Create a Terminal Definition*; you entered a new terminal model code. Type the new terminal model code and press the **Enter** key. The following message will display.

22. ENTER TERMINAL ID:

When you have finished associating terminal tables with task IDs, type **END** and press the **Enter** key. If you have specified at least one new association the **install** utility will display the following message:

SAVE NEW TERMINAL/MODEL TABLE (Y/N):

Y means that the associations you specified will take effect. At least one task ID will be associated with a new terminal table.

N means that any of the values you specified will be discarded. There will be no new associations between task IDs and terminal tables. If you enter **N** you will return to the Terminal Menu.

Copyright © 2026 Thoroughbred Software International, Inc.

Type **Y** or **N** and press the **Enter** key. The Terminal Menu will display:

```
1. MODIFY TERMINAL TABLES
2. MODIFY TERMINAL/MODEL CODE CONFIGURATION
3. LOAD TABLE INTO TERMINAL


2. SELECT OPTION (1, 2, OR 3):
```

To continue the terminal definition procedure, please go to the following section.

Choose the Load Table into Terminal Option

NOTE: If you created a terminal table for a terminal you are not using now, please go to the following section to end the terminal definition procedure.

You can load the new terminal definition into the current Thoroughbred Basic environment so that Thoroughbred Basic can make full and efficient use of the terminal you are using.

The **install** utility displays the Terminal Menu:

```
1. MODIFY TERMINAL TABLES
2. MODIFY TERMINAL/MODEL CODE CONFIGURATION
3. LOAD TABLE INTO TERMINAL


2. SELECT OPTION (1, 2, OR 3):
```

You must enter a valid value in the following field:

2. SELECT OPTION (1, 2, OR 3):

Copyright © 2026 Thoroughbred Software International, Inc.

To load the terminal definition into the current Thoroughbred Basic environment, type **3** and press the **Enter** key. The **install** utility will display the Load Terminal with New Terminal Table screen.

```
               LOAD TERMINAL WITH NEW TERMINAL TABLE

ADDSUP      ADDS VIEWPOINT          MICOTERM   MICRO TERM
ADM-3A      LSI MODEL ADM-3A        PIXEL      PIXEL CONSOLE TERM
ALTOS-II    ALTOS-II TERMINAL       PROGTERM   BURROUGHS/CONV.PT
ALTOS-V     ALTOS-V TERMINAL        PT200      PRIME PT200

FASTRK30    4-PHASE FASTTRAK 30     TVI920     TELEVIDEO 920
FORTUNE     FORTUNE                 TVI950     TELEVIDEO 950
HP-2392     HP2392 DISPLAY          VT100      DEC VT100
HP-98785    HP98785A DISPLAY        VT131      DEC VT131

       25. ENTER MODEL CODE TO LOAD (CR = W60E):
```

Check the value displayed in the following field:

25. ENTER MODEL CODE TO LOAD (CR = *XXXXXXXX*):

You can take one of the following actions:

- If *XXXXXXXX* is the model code for the terminal you are using now press the **Enter** key.
- If *XXXXXXXX* is not the model code for the terminal you are using now, type the appropriate model code and press the **Enter** key.

The new terminal definition is now part of the current Thoroughbred Basic environment. The **install** utility will return you to the Terminal Menu:

```
            1. MODIFY TERMINAL TABLES
            2. MODIFY TERMINAL/MODEL CODE CONFIGURATION
            3. LOAD TABLE INTO TERMINAL


            2. SELECT OPTION (1, 2, OR 3):
```

To end the terminal definition procedure, please go to the following section.

End the Terminal Definition Procedure

You have completed a terminal definition and made the new terminal table available to Thoroughbred Basic. You can end the terminal definition procedure and leave the **install** utility.

Copyright © 2026 Thoroughbred Software International, Inc.

The **install** utility displays the Terminal Menu:

```
              1. MODIFY TERMINAL TABLES
              2. MODIFY TERMINAL/MODEL CODE CONFIGURATION
              3. LOAD TABLE INTO TERMINAL


              2. SELECT OPTION (1, 2, OR 3):
```

You must enter a valid value in the following field:

2. SELECT OPTION (1, 2, or 3):

Type **END** and press the **Enter** key. The **install** utility will display the Thoroughbred Basic Utilities Menu:

```
mm/dd/yy - T0          THOROUGHBRED BASIC UTILITIES              hh:mm:ss
                             system information

 1)*APSD - PRINT DISC DIRECTORY        13) *MPSD - DISPLAY TASK ALLOCATION
 2)*BPSD - BUILD FILESET LIST          14) *NPSD - TERMINAL CONFIGURATOR
 3)*CPSD - COMPARE PROGRAMS            15) *OPSD - DEFINE FILES
 4)*DPSD - RENAME PROGRAMS/FILES       16) *PPSD - RENUMBER PROGRAMS
 5)*EPSD - ERASE PROGRAMS/FILES        17) *QPSD - STRING SEARCH AND REPLACE
 6)*FPSD - DISPLAY FILE PARAMETERS     18) *RPSD - OBJECT FILE MAINTENANCE
 7)*GPSD - GHOST TASK COMMUNICATIONS   19) *SPSD - TRANSFER PROGRAMS/FILES
 8)*HPSD - LIST PROGRAMS ON TERMINAL   20) *TPSD - FILE TRANSFER AND EXPAND
 9)*IPSD - HEX FILE DUMP               21) *XPSD - CHANNEL CROSS REFERENCE
10)*JPSD - INITIALIZE DISC ENVIRONMENT 22) BASIC - GOTO BASIC CONSOLE MODE
11)*KPSD - LIST PROGRAMS               23) OS    - EXIT TO OPERATING SYSTEM
12)*LPSD - LIST DISC DIRECTORY


ENTER SELECTION OR CR TO END:
```

You must enter a valid value in the following field:

ENTER SELECTION OR CR TO END:

Copyright © 2026 Thoroughbred Software International, Inc.

Type the number for the **EXIT TO OPERATING SYSTEM** command and press the **Enter** key. The **install** utility will display the Installation and Updating Procedures screen:

```
    Thoroughbred BASIC Installation and Updating Procedures


                1)  Install New System
                2)  Install/Update User Logins
                3)  Install/Update BASIC Directories
                4)  Install/Update BASIC Printers
                5)  Install/Update BASIC Terminals
                6)  Install/Update BASIC Ghost Tasks


                Enter Selection (1 - 6) or <CR> to end:
```

You must enter a valid value in the following field:

Enter Selection (1 - 6) or <CR> to end:

To leave the **install** utility and return to the operating system prompt, press the **Enter** key.

Copyright © 2026 Thoroughbred Software International, Inc.

How to Use Predefined Terminal Definitions

NOTE: If you have only one type of terminal at your site, and if it has been defined to Thoroughbred Basic, you can skip this section. Before you release Thoroughbred Basic to your user community, please use the information in the section titled *How to Establish All Site Terminals* to make sure you have established an appropriate number of terminal IDs for the users at your site.

If you have a variety of terminals at your site, you can use the information and procedure in this section to define all of them to Thoroughbred Basic. If Thoroughbred Basic has not predefined a terminal, you can use the procedure described in the section titled *Create a Terminal Definition*.

Begin the Terminal Specification Procedure

From the operating system prompt in your Thoroughbred Basic home directory type

./install

and press the **Enter** key. The **install** utility will display the Installation and Updating Procedures Menu:

```
Thoroughbred BASIC Installation and Updating Procedures


            1)  Install New System
            2)  Install/Update User Logins
            3)  Install/Update BASIC Directories
            4)  Install/Update BASIC Printers
            5)  Install/Update BASIC Terminals
            6)  Install/Update BASIC Ghost Tasks


            Enter Selection (1 - 6) or <CR> to end:
```

You must enter a valid value in the following field:

Enter Selection (1 - 6) or <CR> to end:

To specify the terminals at your site to Thoroughbred Basic type **5** and press the **Enter** key.

- If you have not activated Thoroughbred Basic the **install** utility will display the Activation Procedure screen. Please go to the following section.
- If you have activated Thoroughbred Basic, or if you are using a demonstration copy of Thoroughbred Basic, the **install** utility will display the Configuration Menu. Please skip the following section and go to the section titled *Choose the type of display*.

Copyright © 2026 Thoroughbred Software International, Inc.

Check the Activation Procedure Screen

If you have not activated Thoroughbred Basic, the following screen will display:

```
            Thoroughbred BASIC Activation Procedure


       This system contains a temporary installation of
       Thoroughbred BASIC.
       You have less than 'nn' days before the number
       of active users is restricted to 3.


                   SSN = XXXXXXXXX-XX
                   Installation Code = XXXXXXXXX

       Do you want to enter the Activation Key? (Y/N):
```

You must enter a valid value in the following field:

Do you want to enter the Activation Key? (Y/N)

Y If you plan to activate Thoroughbred Basic now, please refer to *How to Get an Activation Key*. In most cases, you will want to wait until you finish this task.

N You do not want to enter the Activation Key now. You can finish defining terminals before you activate Thoroughbred Basic.

> **NOTE:** To validate your copy of Thoroughbred Basic, you must get an Activation Key from Thoroughbred Software. From the installation or upgrade you have thirty days to obtain and enter an Activation Key. If thirty days elapse without activation, the installed version of Thoroughbred Basic will be restricted.

If you select **N** the **install** utility will display the following message:

Thoroughbred BASIC Level x *nn* User
DEPRESS THE CARRIAGE RETURN KEY:

Press the **Enter** key to display the Configuration Menu.

Copyright © 2026 Thoroughbred Software International, Inc.

Choose the Type of Display

The **install** utility displays the Configuration Menu:

```
SELECT TCONFIG FILE TO EDIT


   1. TCONFIG8 (NON-WINDOWS)
   2. TCONFIGW (WINDOWS ONLY)


SELECT OPTION (1 OR 2):
```

To specify a terminal type, you must decide whether the terminal will use Thoroughbred Basic Windows. You must enter a valid value in the following field:

SELECT OPTION (**1 OR 2**):

1 is the **TCONFIG8** option, an option that does not enable you to use Dictionary-IV or Thoroughbred Basic Windows.

TCONFIG8 is the name of a file that is placed in the **UTILS** directory under the Thoroughbred Basic home directory. This file contains specifications and definitions that enable Thoroughbred Basic to manage your terminal hardware. For more information on the *TCONFIG8 File*, please refer to the Thoroughbred Basic Customization and Tuning Guide – System Files.

Thoroughbred Dictionary-IV is one of the application development systems. It can provide many resources to Thoroughbred Basic. For more information on these resources please refer to the section on the *Dictionary-IV Interface* in the Thoroughbred Basic Developer Guide.

Thoroughbred Basic Windows is a windowing system that enables you to create pop-up help systems, menu systems, and other program features commonly associated with windowing systems. For more information on Thoroughbred Basic Windows please refer to the Thoroughbred Basic Developer Guide.

If you have very old terminals, if you do not plan to use Dictionary-IV, or if you plan to develop text-based applications, you may want to choose this option.

2 is the **TCONFIGW** option, which enables you to use Dictionary-IV and Thoroughbred Basic Windows.

TCONFIGW is the name of a file that is placed in the **UTILS** directory under the Thoroughbred Basic home directory. This file contains specifications and definitions that enable Thoroughbred Basic to manage your terminal hardware. For more information on the *TCONFIGW File*, please refer to the Thoroughbred Basic Customization and Tuning Guide – System Files.

Copyright © 2026 Thoroughbred Software International, Inc.

If you have terminals with graphics capabilities, if you plan to use Dictionary-IV, or if you plan to develop applications that make use of the Thoroughbred Basic Windows graphical user interface, you must choose this option.

After you select **1** or **2** and press the **Enter** key, the **install** utility will display the Terminal Menu.

Choose the Modify Terminal Tables Option

To make use of terminals that Thoroughbred Basic has predefined you can check a list of terminal definitions. The **install** utility displays the Terminal Menu:

```
            1. MODIFY TERMINAL TABLES
            2. MODIFY TERMINAL/MODEL CODE CONFIGURATION
            3. LOAD TABLE INTO TERMINAL


            2. SELECT OPTION (1, 2, OR 3):
```

You must enter a valid value in the following field:

2. SELECT OPTION (1, 2, OR 3):

To identify your terminal, type **1** and press the **Enter** key. The **install** utility will display the Defined Terminal Table List screen:

Check the Defined Terminal Table List Screen

The **install** utility displays the Defined Terminal Table List screen:

```
                      DEFINED TERMINAL TABLE LIST

   ADDSUP     ADDS VIEWPOINT          MICOTERM   MICRO TERM
   ADM-3A     LSI MODEL ADM-3A        PIXEL      PIXEL CONSOLE TERM
   ALTOS-II   ALTOS-II TERMINAL       PROGTERM   BURROUGHS/CONV.PT
   ALTOS-V    ALTOS-V TERMINAL        PT200      PRIME PT200

   FASTRK30   4-PHASE FASTTRAK 30     TVI920     TELEVIDEO 920
   FORTUNE    FORTUNE                 TVI950     TELEVIDEO 950
   HP-2392    HP2392 DISPLAY          VT100      DEC VT100
   HP-98785   HP98785A DISPLAY        VT131      DEC VT131

3. C-CREATE M-MODIFY D-DELETE L-LIST TABLE - ENTER C, M, D, OR L:
```

Each terminal definition has two parts: the Model Code and the terminal description. The Model Code precedes the description. For example, the Model Code for a DEC VT100 terminal is **VT100**.

Copyright © 2026 Thoroughbred Software International, Inc.

This section of the manual assumes that your site terminals are displayed on the Defined Terminal Table List screen. If your terminals are listed, please write down their Model Codes.

If your terminals are not listed:

- You can determine whether a terminal emulates or is operationally compatible with one of the listed terminals, then write down the Model Code of the listed terminal. If you have to adjust the settings on your terminal, you may have problems with other programs and applications.
- You can determine whether a site terminal is analogous to one of the listed terminals, then write down the Model Code of the listed terminal. Even if your terminal is a good match for one of the listed terminals, you may have minor display problems when you run Thoroughbred Basic.

If you decide to use one of these options you may need to use the information in *How to Modify a Terminal Definition* or the information in *How to Create a Terminal Definition*.

After you identify your site terminals and write down their Model Codes, check the field at the bottom of the screen:

3. C - CREATE, M - MODIFY, D - DELETE, L - LIST TABLE - ENTER C, M, D, OR L:

Type **END** and press the **Enter** key. The **install** utility will return you to the Terminal Menu:

Choose the Model Code Configuration Option

The **install** utility displays the Terminal Menu:

```
1. MODIFY TERMINAL TABLES
2. MODIFY TERMINAL/MODEL CODE CONFIGURATION
3. LOAD TABLE INTO TERMINAL


2. SELECT OPTION (1, 2, OR 3):
```

You must enter a valid value in the following field:

2. SELECT OPTION (1, 2, OR 3):

Type **2** and press the **Enter** key. The **install** utility will display the Terminal/Model Codes screen.

Copyright © 2026 Thoroughbred Software International, Inc.

Associate Terminal IDs with Terminal Tables

Thoroughbred Basic defines terminal IDs, which are also called task IDs, to distinguish one terminal from another. In a multi-user environment, user tasks must be kept separate and distinct to avoid confusion. To help avoid these problems, and to make sure Thoroughbred Basic programmers and users use the appropriate terminal definition, you can associate a task ID with a particular type of terminal.

The **install** utility displays the Terminal/Model Codes screen:

```
              TERMINAL/MODEL CODES

T0 LMC70E   LINK MC-70, PCKEYB    Tm W60E     WY60,PCKEYB,80C,WIN
T1 LMC70E   LINK MC-70, PCKEYB    Tn W60E     WY60,PCKEYB,80C,WIN
T2 LMC70E   LINK MC-70, PCKEYB    To LMC70S   LINK,MC-70,STANDARD
T3 LMC70E   LINK MC-70, PCKEYB    Tp W60E     WY60,PCKEYB,80C,WIN
                                  .
                                  .
                                  .
(CR) FOR MORE OR END TO SELECT:
                                  .
                                  .
                                  .

                    THIS TERMINAL IS T0


     22. ENTER TERMINAL ID:
```

The list of terminals and model codes may occupy more than one screen. Take one of the following actions:

- To scroll down through the list, press the **Enter** key. The **THIS TERMINAL IS** *XX* message is displayed at the bottom of the list.
- To specify a terminal ID without viewing the list, type **END** and press the **Enter** key. The **THIS TERMINAL IS** *XX* message is displayed.

You must enter a valid value in the following field:

22. ENTER TERMINAL ID:

The **install** utility places you in a loop that begins and ends with this message. You can take one of the following actions:

- If you have a terminal definition for the terminal, you are currently using you can type the terminal ID displayed on the screen in the **THIS TERMINAL IS** *XX* message. On the sample screen illustrated above the displayed terminal ID is **T0**, which usually refers to the system console.
- If you have a terminal definition for a terminal, you are not currently using you can select and type one of the terminal IDs that is not displayed in the **THIS TERMINAL IS** *XX* message.

Copyright © 2026 Thoroughbred Software International, Inc.

The Terminal/Model Codes screen contains a limited number of task IDs. If you have used these entire terminal IDs, you can specify a task ID with the *Xx* format:

X is an uppercase letter. Valid values are **T**, **U**, **V**, **W**, **X**, **Y**, **Z**, **A**, **B**, **E**, **H**, **I**, **J**, **K**, and **M**.

x is a numeral, an uppercase letter, or a lowercase letter. Valid values are **0** through **9**, **A** through **Z**, and **a** through **z**.

In most cases, terminal IDs are specified in the following order: **T0** through **T9**, **TA** through **TZ**, **Ta** through **Tz**, **U0** through **U9**, and so on. You can specify up to 930 task IDs.

- If you have created a terminal definition for all or most of your site terminals you can type **ALL**.

> **NOTE:** The **ALL** command can only associate a terminal table with the listed task IDs. The Terminal/Model Codes screen contains a limited number of task IDs. If you need to specify more task IDs please refer to the section titled *How to Establish All Site Terminals*.

- If you have associated task IDs with terminal definitions and you want to see an updated display of the Terminal/Model Codes screen you can type **TABLE**.

- If you want to stop associating terminal IDs with terminal tables you can type **END**. The **install** utility will return you to the Terminal Menu. To continue the terminal definition procedure, please go the following section.

To associate at least one task ID with a terminal table, type a valid value other than **END** or **TABLE** and press the **Enter** key. The **install** utility diverges slightly at this point:

If you specified one terminal ID, such as **T1**, the **install** utility will display the following message:

23. DELETE (Y/N):

Y means you want to delete the task ID from the displayed list. The install utility will return you to the preceding message, which asks you to enter a terminal ID.

N means you want to specify a new terminal table that will be associated with the task ID.

Because you want to associate a terminal table with a task ID, type **N** and press the **Enter** key.

If you specified **ALL**, or if you specified one terminal ID and specified **N** for the message above, the **install** utility will display the following message:

24. **ENTER MODEL CODE** (**8 CHARACTERS MAX**):

Type one of the terminal model codes you wrote down earlier and press the **Enter** key. The following message will display.

Copyright © 2026 Thoroughbred Software International, Inc.

22. ENTER TERMINAL ID:

If you have finished associating terminal tables with task IDs you can type **END** and press the **Enter** key. Because you have specified at least one new association the **install** utility will display the following message:

SAVE NEW TERMINAL/MODEL TABLE (Y/N):

Y means that the associations you specified will take effect. At least one task ID will be associated with a new terminal table.

N means that any of the values you specified will be discarded. There will be no new associations between task IDs and terminal tables. If you enter **N** you will return to the Terminal Menu. Please go to the following section to continue the terminal specification procedure.

Type **Y** and press the **Enter** key. The Terminal Menu will display.

Choose the Load Table into Terminal Option

NOTE: If you created a terminal table for a terminal you are not using now, please go to the following section to end the terminal specification procedure.

You can load the new terminal definition into the current Thoroughbred Basic Environment so that Thoroughbred Basic can make full and efficient use of the terminal you are currently using.

```
1. MODIFY TERMINAL TABLES
2. MODIFY TERMINAL/MODEL CODE CONFIGURATION
3. LOAD TABLE INTO TERMINAL


2. SELECT OPTION (1, 2, OR 3):
```


Copyright © 2026 Thoroughbred Software International, Inc.

You must enter a valid value in the following field:

2. SELECT OPTION (1, 2, OR 3):

To load the terminal definition into the current Thoroughbred Basic environment, type **3** and press the **Enter** key. The **install** utility will display the Load Terminal with New Terminal Table screen.

```
                LOAD TERMINAL WITH NEW TERMINAL TABLE

   ADDSUP     ADDS VIEWPOINT         MICOTERM   MICRO TERM
   ADM-3A     LSI MODEL ADM-3A       PIXEL      PIXEL CONSOLE TERM
   ALTOS-II   ALTOS-II TERMINAL      PROGTERM   BURROUGHS/CONV.PT
   ALTOS-V    ALTOS-V TERMINAL       PT200      PRIME PT200

   FASTRK30   4-PHASE FASTTRAK 30    TVI920     TELEVIDEO 920
   FORTUNE    FORTUNE                TVI950     TELEVIDEO 950
   HP-2392    HP2392 DISPLAY         VT100      DEC VT100
   HP-98785   HP98785A DISPLAY       VT131      DEC VT131

         25. ENTER MODEL CODE TO LOAD (CR = W60E):
```

Check the value displayed in the following field:

25. ENTER MODEL CODE TO LOAD (CR = *XXXXXXXX*):

You can take one of the following actions:

- If *XXXXXXXX* is the model code for the terminal you are using now press the **Enter** key.
- If *XXXXXXXX* is not the model code for the terminal you are using now, type the appropriate model code and press the **Enter** key.

The new terminal definition is now part of the current Thoroughbred Basic environment. The **install** utility will return you to the Terminal Menu.

End the Terminal Specification Procedure

You have specified the types of terminals that the Thoroughbred Basic community at your site will use. You have associated each type of terminal with at least one task ID. Now, you can end the terminal specification procedure and leave the **install** utility.

Copyright © 2026 Thoroughbred Software International, Inc.

The **install** utility displays the Terminal Menu:

```
              1. MODIFY TERMINAL TABLES
              2. MODIFY TERMINAL/MODEL CODE CONFIGURATION
              3. LOAD TABLE INTO TERMINAL


              2. SELECT OPTION (1, 2, OR 3):
```

You must enter a valid value in the following field:

2. SELECT OPTION (1, 2, or 3):

Type **END** and press the **Enter** key. The **install** utility will display the Thoroughbred Basic Utilities Menu:

```
mm/dd/yy - T0          THOROUGHBRED BASIC UTILITIES              hh:mm:ss
                              system information

 1)*APSD - PRINT DISC DIRECTORY        13) *MPSD - DISPLAY TASK ALLOCATION
 2)*BPSD - BUILD FILESET LIST          14) *NPSD - TERMINAL CONFIGURATOR
 3)*CPSD - COMPARE PROGRAMS            15) *OPSD - DEFINE FILES
 4)*DPSD - RENAME PROGRAMS/FILES       16) *PPSD - RENUMBER PROGRAMS
 5)*EPSD - ERASE PROGRAMS/FILES        17) *QPSD - STRING SEARCH AND REPLACE
 6)*FPSD - DISPLAY FILE PARAMETERS     18) *RPSD - OBJECT FILE MAINTENANCE
 7)*GPSD - GHOST TASK COMMUNICATIONS   19) *SPSD - TRANSFER PROGRAMS/FILES
 8)*HPSD - LIST PROGRAMS ON TERMINAL   20) *TPSD - FILE TRANSFER AND EXPAND
 9)*IPSD - HEX FILE DUMP               21) *XPSD - CHANNEL CROSS REFERENCE
10)*JPSD - INITIALIZE DISC ENVIRONMENT 22) BASIC - GOTO BASIC CONSOLE MODE
11)*KPSD - LIST PROGRAMS               23) OS    - EXIT TO OPERATING SYSTEM
12)*LPSD - LIST DISC DIRECTORY


ENTER SELECTION OR CR TO END:
```

You must enter a valid value in the following field:

ENTER SELECTION OR CR TO END:

Copyright © 2026 Thoroughbred Software International, Inc.

Type the number for the **EXIT TO OPERATING SYSTEM** command and press the **Enter** key. The **install** utility will display the Installation and Updating Procedures screen:

```
    Thoroughbred BASIC Installation and Updating Procedures


                1)  Install New System
                2)  Install/Update User Logins
                3)  Install/Update BASIC Directories
                4)  Install/Update BASIC Printers
                5)  Install/Update BASIC Terminals
                6)  Install/Update BASIC Ghost Tasks


                Enter Selection (1 - 6) or <CR> to end:
```

You must enter a valid value in the following field:

Enter Selection (1 - 6) or <CR> to end:

To leave the **install** utility and return to the operating system prompt, press the **Enter** key.

To finish establishing your entire site terminals with Thoroughbred Basic please go to the section titled *How to Establish All Site Terminals*.

How to Establish All Site Terminals

To make sure that all your users can use all your site terminals, you can establish all of the terminals by creating a task ID for each terminal and associating the task ID with a terminal definition. You may need to use the procedure described in this section if you have more terminals than you have already associated with task IDs. For reasons discussed in the following section, you may need to use the procedure twice.

This section assumes that you have identified all the terminals at your site, that you have terminal definitions for your site terminals, and that you have associated each terminal definition with at least one task ID. For more information on how to identify and specify terminal definitions please refer to the section titled *How to Use Predefined Terminal Definitions*.

NOTE: As an alternative to the procedure described below you can create a TERM.MAP file, which enables site users to select a terminal table before they run Thoroughbred Basic. For more information on the *TERM.MAP File*, please refer to the Thoroughbred Basic Customization and Tuning Guide – System Files.

Prepare for the Procedure

To prepare to establish all your site terminals to Thoroughbred Basic you can:

- Count all the terminals that may run Thoroughbred Basic. List the terminal types and the number of terminals that belong to each terminal type. Make sure you have identified or created a terminal definition for each terminal type.

Copyright © 2026 Thoroughbred Software International, Inc.

- Determine which terminals can use Thoroughbred Basic Windows. If you have some terminals that can run Thoroughbred Basic Windows and some that cannot, you may have to use the following procedure twice: once to establish terminals that can use Thoroughbred Basic Windows and once to establish terminals that cannot. A terminal that runs applications that use Thoroughbred Basic Windows can also run applications that do not.

  Task IDs and their associated terminal tables are placed in the TCONFIG8 or TCONFIGW file. The TCONFIG8 file contains task IDs for terminals that can only run text-based Thoroughbred Basic and the TCONFIGW file contains task IDs for terminals that can run Thoroughbred Basic Windows as well as text-based Thoroughbred Basic. The following procedure can only update one of these files at a time.

  For more information on the *TCONFIG8* and *TCONFIGW Files*, please refer to the Thoroughbred Basic Customization and Tuning Guide – System Files.

- Establish site naming conventions for task IDs. By default, the Terminal/Model Codes screen, which displays task IDs and their associated terminal definitions, starts with 8 task IDs, numbered **T0** through **T7**. You can specify a task ID with the *Xx* format:

  X is an uppercase letter. Valid values are **T**, **U**, **V**, **W**, **X**, **Y**, **Z**, **A**, **B**, **E**, **H**, **I**, **J**, **K**, and **M**.

  x is a numeral, an uppercase letter, or a lowercase letter. Valid values are **0** through **9**, **A** through **Z**, and **a** through **z**.

  In most cases, terminal IDs are specified in the following order: *X***0** through *X***9**, *X***A** through *X***Z**, *X***a** through *X***z**, and so on. You can specify up to 930 task IDs.

  If, for example, your site has terminals that can use Thoroughbred Basic Windows and terminals that cannot, you can decide that task IDs specified as **T***x* will identify terminals that can only run text-based applications and that task IDs specified as **W***x* will identify terminals that run both Thoroughbred Basic Windows applications and text-based applications.

- Make a list of the associations you will establish between task IDs and terminal definitions. You may need this information to determine how your users will login to Thoroughbred Basic. For more information on site login procedures, please refer to the section titled *How to Establish Site Login Procedures*.

Copyright © 2026 Thoroughbred Software International, Inc.

Begin the Terminal Establishment Procedure

From the operating system prompt in your Thoroughbred Basic home directory type

./install

and press the **Enter** key. The **install** utility will display the Installation and Updating Procedures Menu:

```
    Thoroughbred BASIC Installation and Updating Procedures


                1)  Install New System
                2)  Install/Update User Logins
                3)  Install/Update BASIC Directories
                4)  Install/Update BASIC Printers
                5)  Install/Update BASIC Terminals
                6)  Install/Update BASIC Ghost Tasks


                Enter Selection (1 - 6) or <CR> to end:
```

You must enter a valid value in the following field:

Enter Selection (1 - 6) or <CR> to end:

To specify the terminals at your site to Thoroughbred Basic type **5** and press the **Enter** key.

- If you have not activated Thoroughbred Basic the **install** utility will display the Activation Procedure screen. Please go to the following section.
- If you have activated Thoroughbred Basic, or if you are using a demonstration copy of Thoroughbred Basic, the **install** utility will display the Configuration Menu. Please skip the following section and go to the section titled *Choose the Type of Display*.

Copyright © 2026 Thoroughbred Software International, Inc.

Check the Activation Procedure Screen

If you have not activated Thoroughbred Basic, the following screen will display:

```
            Thoroughbred BASIC Activation Procedure


       This system contains a temporary installation of
       Thoroughbred BASIC.
       You have less than 'nn' days before the number
       of active users is restricted to 3.


                   SSN = XXXXXXXXX-XX
                   Installation Code = XXXXXXXXX

       Do you want to enter the Activation Key? (Y/N):
```

You must enter a valid value in the following field:

Do you want to enter the Activation Key? (Y/N)

Y If you plan to activate Thoroughbred Basic now, please refer to *How to Get an Activation Key* in this manual. In most cases, you will want to wait until you finish this task.

N You do not want to enter the Activation Key now. You can finish establishing terminals before you activate Thoroughbred Basic.

> **NOTE:** To validate your copy of Thoroughbred Basic, you must get an Activation Key from Thoroughbred Software. From the installation or upgrade you have thirty days to obtain and enter an Activation Key. If thirty days elapse without activation, the installed version of Thoroughbred Basic will be restricted.

If you select **N** the install utility will display the following message:

Thoroughbred BASIC Level x *nn* User
DEPRESS THE CARRIAGE RETURN KEY:

Press the **Enter** key to display the Configuration Menu.

Copyright © 2026 Thoroughbred Software International, Inc.

Choose the Type of Display

The **install** utility displays the Configuration Menu:

```
SELECT TCONFIG FILE TO EDIT


   1. TCONFIG8 (NON-WINDOWS)
   2. TCONFIGW (WINDOWS ONLY)


SELECT OPTION (1 OR 2):
```

To specify a terminal type, you must decide whether the terminal will use Thoroughbred Basic Windows. You must enter a valid value in the following field:

SELECT OPTION (**1 OR 2**):

1 is the **TCONFIG8** option, an option that does not enable you to use Dictionary-IV or Thoroughbred Basic Windows.

2 is the **TCONFIGW** option, which enables you to use Dictionary-IV and Thoroughbred Basic Windows.

After you select **1** or **2** and press the **Enter** key, the **install** utility will display the Terminal Menu.

Choose the Model Code Configuration Option

The **install** utility displays the Terminal Menu:

```
            1. MODIFY TERMINAL TABLES
            2. MODIFY TERMINAL/MODEL CODE CONFIGURATION
            3. LOAD TABLE INTO TERMINAL


            2. SELECT OPTION (1, 2, OR 3):
```


Copyright © 2026 Thoroughbred Software International, Inc.

You must enter a valid value in the following field:

2. SELECT OPTION (1, 2, OR 3):

Type **2** and press the **Enter** key. The **install** utility will display the Terminal/Model Codes screen:

Associate Terminal IDs with Terminal Tables

The **install** utility displays the Terminal/Model Codes screen:

```
              TERMINAL/MODEL CODES

T0 LMC70E   LINK MC-70, PCKEYB    Tm W60E     WY60,PCKEYB,80C,WIN
T1 LMC70E   LINK MC-70, PCKEYB    Tn W60E     WY60,PCKEYB,80C,WIN
T2 LMC70E   LINK MC-70, PCKEYB    To LMC70S   LINK,MC-70,STANDARD
T3 LMC70E   LINK MC-70, PCKEYB    Tp W60E     WY60,PCKEYB,80C,WIN
                                  .
                                  .
                                  .
(CR) FOR MORE OR END TO SELECT:
                                  .
                                  .
                                  .

                    THIS TERMINAL IS T0


     22. ENTER TERMINAL ID:
```

The list of terminals and model codes may occupy more than one screen. Take one of the following actions:

- To scroll down through the list, press the **Enter** key. The **THIS TERMINAL IS** *XX* message is displayed at the bottom of the list.
- To specify a terminal ID without viewing the list, type **END** and press the **Enter** key. The **THIS TERMINAL IS** *XX* message is displayed.

You must enter a valid value in the following field:

22. ENTER TERMINAL ID:

The **install** utility places you in a loop that begins and ends with this message. You can take one of the following actions:

- Type a valid task ID. The Terminal/Model Codes screen contains a limited number of task IDs. If you have used all of these terminal IDs, you can specify a task ID with the *Xx* format:

  X is an uppercase letter. Valid values are **T**, **U**, **V**, **W**, **X**, **Y**, **Z**, **A**, **B**, **E**, **H**, **I**, **J**, **K**, and **M**.

Copyright © 2026 Thoroughbred Software International, Inc.

x is a numeral, an uppercase letter, or a lowercase letter. Valid values are **0** through **9**, **A** through **Z**, and **a** through **z**.

In some cases, terminal IDs are specified in the following order: **T0** through **T9**, **TA** through **TZ**, **Ta** through **Tz**, **U0** through **U9**, and so on. You can specify up to 930 task IDs.

- If you have a terminal definition for all or most of your site terminals you can type **ALL**.

> **NOTE:** The ALL command can only associate a terminal table with the number of task IDs displayed on the Terminal/Model Codes screen.

- If you have associated task IDs with terminal definitions and you want to see an updated display of the Terminal/Model Codes screen you can type **TABLE**.

- If you want to stop associating terminal IDs with terminal tables you can type **END**. The **install** utility will return you to the Terminal Menu. To continue the terminal definition procedure, please go the following section.

To associate at least one task ID with a terminal table, type a valid value other than **END** or **TABLE** and press the **Enter** key. The **install** utility diverges slightly at this point:

If you specified one terminal ID, such as **T1**, the **install** utility will display the following message:

23. **DELETE** (**Y**/**N**)?:

Y means you want to delete the task ID from the displayed list. The install utility will return you to the preceding message, which asks you to enter a terminal ID.

N means you want to specify a new terminal table that will be associated with the task ID.

Because you want to associate a terminal table with a task ID, type **N** and press the **Enter** key.

If you specified **ALL**, or if you specified one terminal ID and specified **N** for the message above, the **install** utility will display the following message:

24. **ENTER MODEL CODE** (**8 CHARACTERS MAX**):

Type one of the terminal model codes you wrote down earlier and press the **Enter** key. The following message will be displayed.

22. ENTER TERMINAL ID:

If you have finished associating terminal tables with task IDs you can type **END** and press the **Enter** key. Because you have specified at least one new association the **install** utility will display the following message:

SAVE NEW TERMINAL/MODEL TABLE (Y/N):

Y means that the associations you specified will take effect. At least one task ID will be associated with a new terminal table.

Copyright © 2026 Thoroughbred Software International, Inc.

N means that any of the values you specified will be discarded. There will be no new associations between task IDs and terminal tables. If you enter **N** you will return to the Terminal Menu. Please go to the following section to continue the terminal establishment procedure.

Type **Y** and press the **Enter** key. The Terminal Menu will be displayed.

End the Terminal Establishment Procedure

You have specified the types of terminals that the Thoroughbred Basic community at your site will use. You have associated each type of terminal with at least one task ID. Now, you can end the terminal specification procedure and leave the **install** utility.

The **install** utility displays the Terminal Menu:

```
              1. MODIFY TERMINAL TABLES
              2. MODIFY TERMINAL/MODEL CODE CONFIGURATION
              3. LOAD TABLE INTO TERMINAL


              2. SELECT OPTION (1, 2, OR 3):
```

You must enter a valid value in the following field:

2. SELECT OPTION (1, 2, or 3):

Type **END** and press the **Enter** key. The **install** utility will display the Thoroughbred Basic Utilities Menu:

```
mm/dd/yy - T0          THOROUGHBRED BASIC UTILITIES              hh:mm:ss
                              system information

 1)*APSD - PRINT DISC DIRECTORY        13) *MPSD - DISPLAY TASK ALLOCATION
 2)*BPSD - BUILD FILESET LIST          14) *NPSD - TERMINAL CONFIGURATOR
 3)*CPSD - COMPARE PROGRAMS            15) *OPSD - DEFINE FILES
 4)*DPSD - RENAME PROGRAMS/FILES       16) *PPSD - RENUMBER PROGRAMS
 5)*EPSD - ERASE PROGRAMS/FILES        17) *QPSD - STRING SEARCH AND REPLACE
 6)*FPSD - DISPLAY FILE PARAMETERS     18) *RPSD - OBJECT FILE MAINTENANCE
 7)*GPSD - GHOST TASK COMMUNICATIONS   19) *SPSD - TRANSFER PROGRAMS/FILES
 8)*HPSD - LIST PROGRAMS ON TERMINAL   20) *TPSD - FILE TRANSFER AND EXPAND
 9)*IPSD - HEX FILE DUMP               21) *XPSD - CHANNEL CROSS REFERENCE
10)*JPSD - INITIALIZE DISC ENVIRONMENT 22) BASIC - GOTO BASIC CONSOLE MODE
11)*KPSD - LIST PROGRAMS               23) OS    - EXIT TO OPERATING SYSTEM
12)*LPSD - LIST DISC DIRECTORY


ENTER SELECTION OR CR TO END:
```


Copyright © 2026 Thoroughbred Software International, Inc.

You must enter a valid value in the following field:

ENTER SELECTION OR CR TO END:

Type the number for the **EXIT TO OPERATING SYSTEM** command and press the **Enter** key. The **install** utility will display the Installation and Updating Procedures screen:

```
Thoroughbred BASIC Installation and Updating Procedures


            1)  Install New System
            2)  Install/Update User Logins
            3)  Install/Update BASIC Directories
            4)  Install/Update BASIC Printers
            5)  Install/Update BASIC Terminals
            6)  Install/Update BASIC Ghost Tasks


            Enter Selection (1 - 6) or <CR> to end:
```

You must enter a valid value in the following field:

Enter Selection (1 - 6) or <CR> to end:

You can take one of the following actions:

- To run through the terminal establishment procedure again you can type **5** and press the **Enter** key. For more information on how to follow the procedure please refer to the section titled *Choose the Type of Display*.
- To leave the **install** utility and return to the operating system prompt, press the **Enter** key.

Test Site Terminals

After all site terminals are established, you can test some of the terminals to make sure they function properly. After you finish testing, you can use the information in the next section to tell site personnel how to login to Thoroughbred Basic.

Copyright © 2026 Thoroughbred Software International, Inc.

How to Establish Site Login Procedures

Use the information in the following sections to determine how site personnel will login to Thoroughbred Basic.

Check the Login Command

Each Thoroughbred Basic user can use the following command to login to Thoroughbred Basic:

./b [taskID] [IPLfile]

./ tells the operating system to search the current directory, in this case the Thoroughbred Basic home directory.

b is the command to start Thoroughbred Basic.

taskID is the name of the task ID, which is also called the terminal ID. In a multi-user environment, all of the users at your site must agree to start Thoroughbred Basic in just one of the following ways:

- Allow Thoroughbred Basic to assign task IDs, in which case no user specifies a value for taskID. A task ID is automatically assigned to a terminal depending on the position of the terminal device name in the TERMINAL file.

  For more information on the TERMINAL file, please refer to the Thoroughbred Basic Customization and Tuning Guide – System Files.

- Use a unique task ID, in which case every user specifies a value for *taskID*. Because task IDs are associated with terminals, a user who works at several terminals may have to remember several task IDs.

Site procedures must specify just one of these ways to start Thoroughbred Basic. If both methods are used, more than one user may use the same task ID, which can cause problems such as file corruption or display problems.

IPLfile is the name of the initial program load (IPL) file, which contains specifications that are automatically implemented and commands that are automatically executed when a user starts Thoroughbred Basic. The default is IPLINPUT, a file in the Thoroughbred Basic home directory.

For more information on the *IPLINPUT File*, please refer to the Thoroughbred Basic Customization and Tuning Guide – System Files.

Copyright © 2026 Thoroughbred Software International, Inc.

Determine How Site Personnel Will Login

You can use the following information to help specify site login procedures:

- Whether Thoroughbred Basic users need to specify a task ID to login can depend on site hardware and network configurations. In some cases, allowing Thoroughbred Basic to automatically assign a task ID may mean that the same terminal is assigned a different task ID from login to login. Because terminal definitions are associated with task IDs this may mean that an invalid terminal definition is assigned to the terminal.

  One way to resolve this problem is to specify that a user login to Thoroughbred Basic by specifying the task ID you assigned to that terminal. Another way is to create a TERM.MAP file. For more information on the *TERM.MAP File* please refer to the Thoroughbred Basic Customization and Tuning Guide – System Files.

- If you created a TERM.MAP file your users will have to specify the following command sequence before starting Thoroughbred Basic:

  TERM=*terminal-type***; export TERM**

  terminal-type is the name of a terminal defined in the TERM.MAP file.

- You can alter the UNIX login procedure for each user. For example, you can specify that a user is automatically placed in Thoroughbred Basic when the user logs on to the operating system. For more information on UNIX logins please refer to your operating system documentation.

How to Modify a Terminal Definition

You may need to change parts of an existing terminal definition to use the full set of terminal capabilities or to correct a display problem. To modify a terminal definition, you can use the following procedure.

Identify What You Plan to Change

Make a list of the features you plan to incorporate in the terminal definition, display problems you have encountered, or keystroke sequences that do not perform the appropriate function.

Check the Terminal Documentation

To modify a terminal definition, you will need to provide some technical information to Thoroughbred Basic. Please get the technical reference for the terminal. Make sure the documentation includes lists of terminal functions, key codes, and escape sequences. If these specifications are missing, please contact your terminal manufacturer for the relevant information.

If you have a full set of terminal specifications, compare the changes you plan to make against the capabilities of the terminal. If your terminal does not support the features you would like to include in the terminal definition, please change your list of modifications.

Copyright © 2026 Thoroughbred Software International, Inc.

Begin the Modification Procedure

From the operating system prompt in your Thoroughbred Basic home directory type

./install

and press the **Enter** key. The **install** utility will display the Installation and Updating Procedures Menu:

```
    Thoroughbred BASIC Installation and Updating Procedures


                1)  Install New System
                2)  Install/Update User Logins
                3)  Install/Update BASIC Directories
                4)  Install/Update BASIC Printers
                5)  Install/Update BASIC Terminals
                6)  Install/Update BASIC Ghost Tasks


                Enter Selection (1 - 6) or <CR> to end:
```

You must enter a valid value in the following field:

Enter Selection (1 - 6) or <CR> to end:

To define a terminal type **5** and press the **Enter** key:

- If you have not activated Thoroughbred Basic the **install** utility will display the Activation Procedure screen. Please go to the following section.
- If you have activated Thoroughbred Basic, or if you are using a demonstration copy of Thoroughbred Basic, the **install** utility will display the Configuration Menu. Please skip the following section and go to the section titled *Choose the type of display*.

Copyright © 2026 Thoroughbred Software International, Inc.

Check the Activation Procedure Screen

If you have not activated Thoroughbred Basic, the following screen will be displayed:

```
        Thoroughbred BASIC Activation Procedure


    This system contains a temporary installation of
    Thoroughbred BASIC.
    You have less than 'nn' days before the number
    of active users is restricted to 3.


                SSN = XXXXXXXXX-XX
                Installation Code = XXXXXXXXX

    Do you want to enter the Activation Key? (Y/N):
```

You must enter a valid value in the following field:

Do you want to enter the Activation Key? (Y/N)

Y If you plan to activate Thoroughbred Basic now, please refer to *How to Get an Activation Key* in this manual. In most cases, you will want to wait until you finish this task.

N You do not want to enter the Activation Key now. You can finish modifying the terminal definition before you activate Thoroughbred Basic.

> **NOTE:** To validate your copy of Thoroughbred Basic, you must get an Activation Key from Thoroughbred Software. From the installation date you have thirty days to obtain and enter an Activation Key. If thirty days elapse without activation, the installed version of Thoroughbred Basic will be restricted.

If you select **N** the install utility will display the following message:

Thoroughbred BASIC Level x *nn* User
DEPRESS THE CARRIAGE RETURN KEY:

Press the **Enter** key to display the Configuration Menu.

Copyright © 2026 Thoroughbred Software International, Inc.

Choose the Type of Display

The **install** utility displays the Configuration Menu:

```
SELECT TCONFIG FILE TO EDIT


   1. TCONFIG8 (NON-WINDOWS)
   2. TCONFIGW (WINDOWS ONLY)


SELECT OPTION (1 OR 2):
```

To begin defining a terminal you must decide whether the terminal will use Thoroughbred Basic Windows. You must enter a valid value in the following field:

SELECT OPTION (**1 OR 2**):

1 is the **TCONFIG8** option, an option that does not enable you to use Dictionary-IV or Thoroughbred Basic Windows.

2 is the **TCONFIGW** option, which enables you to use Dictionary-IV and Thoroughbred Basic Windows.

After you select **1** or **2** and press the **Enter** key, the **install** utility will display the Terminal Menu.

Choose the Modify Terminal Tables Option

The **install** utility displays the Terminal Menu:

```
            1. MODIFY TERMINAL TABLES
            2. MODIFY TERMINAL/MODEL CODE CONFIGURATION
            3. LOAD TABLE INTO TERMINAL


            2. SELECT OPTION (1, 2, OR 3):
```


Copyright © 2026 Thoroughbred Software International, Inc.

You must enter a valid value in the following field:

2. SELECT OPTION (1, 2, OR 3):

To identify your terminal, type **1** and press the **Enter** key. The **install** utility will display the Defined Terminal Table List screen:

Check the Defined Terminal Table List Screen

The **install** utility displays the Defined Terminal Table List screen:

```
                    DEFINED TERMINAL TABLE LIST

   ADDSUP     ADDS VIEWPOINT         MICOTERM   MICRO TERM
   ADM-3A     LSI MODEL ADM-3A       PIXEL      PIXEL CONSOLE TERM
   ALTOS-II   ALTOS-II TERMINAL      PROGTERM   BURROUGHS/CONV.PT
   ALTOS-V    ALTOS-V TERMINAL       PT200      PRIME PT200

   FASTRK30   4-PHASE FASTTRAK 30    TVI920     TELEVIDEO 920
   FORTUNE    FORTUNE                TVI950     TELEVIDEO 950
   HP-2392    HP2392 DISPLAY         VT100      DEC VT100
   HP-98785   HP98785A DISPLAY       VT131      DEC VT131

3. C-CREATE M-MODIFY D-DELETE L-LIST TABLE - ENTER C, M, D, OR L:
```

Each terminal definition has two parts: the Model Code and the terminal description. The Model Code precedes the description. For example, the Model Code for a DEC VT100 terminal is **VT100**. Because you are modifying a terminal definition this section of the manual assumes that your terminal is displayed on the Defined Terminal Table List screen.

You must enter a valid value in the following field:

3. C - CREATE, M - MODIFY, D - DELETE, L - LIST TABLE - ENTER C, M, D, OR L:

Because you plan to modify a terminal table, consider only the following options:

M is short for **MODIFY** a terminal table. You can add, delete, or replace table specifications to change an existing terminal definition. In most cases you will use this option to supplement the capabilities of a terminal that is already defined.

If you have a list of the specifications that compose the terminal definition, please refer to the section titled *Begin to Modify the Terminal Definition*.

L is short for **LIST** a terminal table. You can print the list of terminals on the Defined Terminal Table List screen or print a terminal table, which contains the complete list of specifications for one defined terminal.

To print a list of the specifications in a terminal definition, please go to the next section titled *List the Terminal Table*. This list will provide information to help guide you to appropriate prompts and save you some time.

Copyright © 2026 Thoroughbred Software International, Inc.

> **NOTE:** Before you can list a terminal table, you must define at least one printer to Thoroughbred Basic. For more information on how Thoroughbred Basic works with printers please refer to *How to Establish Printers*.

END means end the terminal definition procedure. If you select this option you will return to the Terminal Menu, which is described in the section titled *Choose the Modify Terminal Tables Option*.

List the Terminal Table

> **NOTE:** Before you can list a terminal table, you must define at least one printer to Thoroughbred Basic. For more information on how Thoroughbred Basic works with printers please refer to *How to Establish Printers*.

The **install** utility displays the Defined Terminal Table List screen:

```
                    DEFINED TERMINAL TABLE LIST

   ADDSUP     ADDS VIEWPOINT         MICOTERM   MICRO TERM
   ADM-3A     LSI MODEL ADM-3A       PIXEL      PIXEL CONSOLE TERM
   ALTOS-II   ALTOS-II TERMINAL      PROGTERM   BURROUGHS/CONV.PT
   ALTOS-V    ALTOS-V TERMINAL       PT200      PRIME PT200

   FASTRK30   4-PHASE FASTTRAK 30    TVI920     TELEVIDEO 920
   FORTUNE    FORTUNE                TVI950     TELEVIDEO 950
   HP-2392    HP2392 DISPLAY         VT100      DEC VT100
   HP-98785   HP98785A DISPLAY       VT131      DEC VT131

3. C-CREATE M-MODIFY D-DELETE L-LIST TABLE - ENTER C, M, D, OR L:
```

You must enter a valid value in the following field:

3. C - CREATE, M - MODIFY, D - DELETE, L - LIST TABLE - ENTER C, M, D, OR L:

To list defined terminal tables, type **L** and press the **Enter** key. The **install** utility will display the following message:

TABLE LISTING ONLY (Y/N)?

Y You can print the list of terminals displayed on the Defined Terminal Table List screen. Only the Model Code and the terminal description will be printed.

N You can print the list of values specified in one terminal table. These values can include the numeric values associated with keystrokes, values associated with printer mnemonics, and so on.

END means end the list procedure. If you have not used the information in *How to Establish Printers* to define a printer to Thoroughbred Basic, you may want to choose this option.

If you type **END** and press the key you will return to the Terminal Menu screen, which is described in the section titled *Choose the Modify Terminal Tables Option*.

Copyright © 2026 Thoroughbred Software International, Inc.

Type **N** and press the **Enter** key. If site printers are validly defined to Thoroughbred Basic, the following message will be displayed:

ENTER TERMINAL TABLE:

Type the Model Code for the terminal definition and press the **Enter** key. The **install** utility will display the following message:

SELECT PRINTER: *XN* . . .

XN is the printer code of a printer defined to Thoroughbred Basic.

Type one of the displayed printer codes and press the **Enter** key. The **install** utility will print all of the specifications in the terminal table; it will also display the specifications on your terminal screen. After the information is printed, you will return to the Defined Terminal Table List screen.

Get the printed copy of the terminal table specifications. Each specification is associated with a prompt number. Make a note of the specifications you plan to change and the associated prompt numbers. Please refer to the following section to continue modifying your terminal.

NOTE: If site printers are not defined to Thoroughbred Basic, if site printers are invalidly defined, or if site printers are busy, the following message will be displayed:

PRINTER IN USE (HIT CR . .)

This message usually signifies a printer definition error. If you press the **Enter** key the message will redisplay; if you do not press the **Enter** key the message will redisplay. To escape from this loop, press **Ctrl-b**. The following message will be displayed:

Return to UNIX (Y/N)? or Debug (D)?

Y means that you will leave the install utility and return to the operating system prompt in the Thoroughbred Basic home directory. **Y** is the only option that enables you to escape from the message loop.

N means that you will remain inside the loop and continue to receive the message. To escape the loop, you will have to press **Ctrl-b** then enter **Y** to return to your operating system prompt.

D is short for debug. In this situation the debug facility will place you inside the loop and you will continue to receive the message. To escape the loop you will have to press **Ctrl-b** then enter **Y** to return to your operating system.

Type **Y** and press the **Enter** key. You will leave the **install** utility and return to the operating system prompt in the Thoroughbred Basic home directory. To continue this procedure, please refer to the section titled *Begin the Modification Procedure*.

Copyright © 2026 Thoroughbred Software International, Inc.

Begin to Modify the Terminal Definition

NOTE: Make sure you have your list of changes, the printed list of terminal table specifications, and technical references for your terminal close at hand.

The **install** utility displays the Defined Terminal Table List screen:

```
                    DEFINED TERMINAL TABLE LIST

   ADDSUP     ADDS VIEWPOINT         MICOTERM   MICRO TERM
   ADM-3A     LSI MODEL ADM-3A       PIXEL      PIXEL CONSOLE TERM
   ALTOS-II   ALTOS-II TERMINAL      PROGTERM   BURROUGHS/CONV.PT
   ALTOS-V    ALTOS-V TERMINAL       PT200      PRIME PT200

   FASTRK30   4-PHASE FASTTRAK 30    TVI920     TELEVIDEO 920
   FORTUNE    FORTUNE                TVI950     TELEVIDEO 950
   HP-2392    HP2392 DISPLAY         VT100      DEC VT100
   HP-98785   HP98785A DISPLAY       VT131      DEC VT131

3. C-CREATE M-MODIFY D-DELETE L-LIST TABLE - ENTER C, M, D, OR L:
```

You must enter a valid value in the following field:

3. **C - CREATE**, **M - MODIFY**, **D - DELETE**, **L - LIST TABLE - ENTER C**, **M**, **D**, **OR L**:

To modify the terminal definition type **M** and press the **Enter** key. The **install** utility will display the following message:

4. **ENTER TERMINAL TABLE**:

Take one of the following actions:

- Type the Model Code for your terminal definition and press the **Enter** key.
- Type **END** and press the **Enter** key. You will halt the modification procedure and return to the Terminal Menu. If you want to resume modifying the terminal definition, please refer to the section titled *How to Modify a Terminal Definition*.

After you enter a valid value other than **END** the **install** utility will display the following message:

-- OLD NAME --> *terminal description*
6. **ENTER TERMINAL NAME** (**20 CHARACTERS MAX**):

*terminal description*is a description associated with a Model Code. If you entered a Model Code for the preceding message, this field contains a brief terminal description. If you did not enter a Model Code for the preceding message, this field is blank.

Copyright © 2026 Thoroughbred Software International, Inc.

Take one of the following actions:

- Type a description of your terminal and press the **Enter** key. A valid terminal description is 1 through 20 alphanumeric characters long.

  If you enter an invalid terminal description, the **install** utility will redisplay this message.

- Press the **Enter** key to accept the current value of *terminal description*. If the field is blank, you will accept an empty terminal description.

- Type **END** and press the **Enter** key. You will halt the terminal definition procedure and return to the Terminal Menu. If you want to resume the terminal definition procedure, please refer to the section titled *Choose the Type of Display*.

If you do not specify **END** at this time the install utility will assume that you want to finish the terminal definition procedure. You are not committed to saving or using the terminal definition you create but you are committed to finishing the procedure described in the next few sections.

After you enter a valid value other than **END**, the **install** utility will display the following message:

-- OLD VALUE --> *xx*
7. ENTER TERMINAL BACKSPACE CODE (HH):

The modification procedure continues in the following section.

Modify Specifications

The install utility displays the following message:

-- OLD VALUE --> *xx*
7. ENTER TERMINAL BACKSPACE CODE (HH):

Each message in this procedure enables you to change a terminal table specification. Because each message is numbered, you can use the printed list of terminal table specifications to determine the number of each message. To go to the appropriate message, use the following command:

BACK *nn*

nn specifies the number of the specification you plan to change. Valid values range from **7** through **38**.

If you specify a number less than **7**, you will be returned to the message numbered **7**, which is listed above. If you specify a number greater than **38**, the message numbered **38** will be displayed.

Copyright © 2026 Thoroughbred Software International, Inc.

The sections titled *Begin to Modify the Terminal Definition* through *Choose the Load Table into Terminal Option* describe the specifications you can reach with the **BACK** *nn* command. After you enter the modifications, you plan to make, you can enter the **BACK 38** command to go to the last message in the range. After you specify or accept a value for the message numbered **38**, the List of Defined Mnemonics screen will be displayed:

```
                    LIST OF DEFINED MNEMONICS


BU  BV  CE  CF  CH  CL  CN  CO  CR  CS  DN  DO  EB  EG  EP  ER  ES
EU  FF  G0  G1  G2  G3  G4  G5  G6  G7  G8  G9  GA  GB  GC  GD  GE
GF  LD  LF  LI  NS  RB  RC  RM  SB  SE  SF  SS  TR  VT  WS  YN  A1
A2  A4  A6  A8  BB  BD  BF  BG  BR  VG  BS



39, DEFINE MNEMONIC CODE MM:
```

If you plan to modify terminal mnemonics, please refer to the information in the sections titled *Consider Terminal Mnemonics* and *Specify Terminal Mnemonics*. If you do not plan to modify terminal mnemonics, or if you have finished entering new specifications for mnemonics, type **END** and press the **Enter** key. Please go to the following section to continue the modification procedure.

Save the Terminal Definition

After you have finished specifying new values for terminal table specifications, the modification procedure is complete. The **install** utility displays the following message:

40. SAVE NEW TERMINAL TABLE (Y/N)?

Y means the **install** utility will save the terminal definition.

N means the terminal definition is not saved. The install utility will return you to the Terminal Menu. You can take one of the following actions:

- If you plan to create a terminal definition, please refer to the section titled *Choose the Modify Terminal Tables **O**ption*.
- If you plan to stop creating a terminal definition, please refer to the section titled *End the Modification Procedure***.**

Copyright © 2026 Thoroughbred Software International, Inc.

To save the terminal definition type **Y** and press the **Enter** key. The **install** utility will display the following message set:

GENERATING TERMINAL CONTROL TABLE

FLAG WORD
POSITION PARAMETERS
SCREEN SIZES
SPECIAL CHARACTERS
CURSOR MASK
IGNORE CHARACTERS
FUNCTION KEYS
MNEMONICS

TERMINAL CONTROL TABLE *NAME* **SUCCESSFULLY GENERATED**

Press <Return> to continue

Press the **Enter** key. The **install** utility will display the following message set:

TERMINAL TABLE *NAME* **PROPERLY SAVED**

Press any key to continue.

Press the **Enter** key. The **install** utility will display the Terminal Menu. To continue the terminal modification procedure, please go to the following section.

Choose the Load Table into Terminal Option

NOTE: If you modified a terminal table for a terminal, you are not using now, please go the following section to end the terminal modification procedure.

You can load the modified terminal definition into the current Thoroughbred Basic environment so that Thoroughbred Basic can make full and efficient use of your terminal.

The **install** utility displays the Terminal Menu:

```
1. MODIFY TERMINAL TABLES
2. MODIFY TERMINAL/MODEL CODE CONFIGURATION
3. LOAD TABLE INTO TERMINAL


2. SELECT OPTION (1, 2, OR 3):
```


Copyright © 2026 Thoroughbred Software International, Inc.

You must enter a valid value in the following field:

2. SELECT OPTION (1, 2, OR 3):

To load the terminal definition into the current Thoroughbred Basic environment, type **3** and press the **Enter** key. The **install** utility will display the Load Terminal with New Terminal Table screen:

```
              LOAD TERMINAL WITH NEW TERMINAL TABLE

ADDSUP     ADDS VIEWPOINT        MICOTERM   MICRO TERM
ADM-3A     LSI MODEL ADM-3A      PIXEL      PIXEL CONSOLE TERM
ALTOS-II   ALTOS-II TERMINAL     PROGTERM   BURROUGHS/CONV.PT
ALTOS-V    ALTOS-V TERMINAL      PT200      PRIME PT200

FASTRK30   4-PHASE FASTTRAK 30   TVI920     TELEVIDEO 920
FORTUNE    FORTUNE               TVI950     TELEVIDEO 950
HP-2392    HP2392 DISPLAY        VT100      DEC VT100
HP-98785   HP98785A DISPLAY      VT131      DEC VT131

      25. ENTER MODEL CODE TO LOAD (CR = W60E):
```

Check the value displayed in the following field:

25. ENTER MODEL CODE TO LOAD (CR = *XXXXXXXX*):

You can take one of the following actions:

- If *XXXXXXXX* is the model code for the terminal you are using now, press the **Enter** key.
- If *XXXXXXXX* is not the model code for the terminal you are using now, type the appropriate model code and press the **Enter** key.

The modified terminal definition is now part of the current Thoroughbred Basic Environment. The **install** utility will return you to the Terminal Menu:

```
          1. MODIFY TERMINAL TABLES
          2. MODIFY TERMINAL/MODEL CODE CONFIGURATION
          3. LOAD TABLE INTO TERMINAL


          2. SELECT OPTION (1, 2, OR 3):
```

To end the terminal definition procedure, please go to the following section.

Copyright © 2026 Thoroughbred Software International, Inc.

End the Modification Procedure

You have finished modifying a terminal definition and made the modified terminal table available to Thoroughbred Basic. You can end the terminal modification procedure and leave the **install** utility.

The **install** utility displays the Terminal Menu:

```
            1. MODIFY TERMINAL TABLES
            2. MODIFY TERMINAL/MODEL CODE CONFIGURATION
            3. LOAD TABLE INTO TERMINAL


            2. SELECT OPTION (1, 2, OR 3):
```

You must enter a valid value in the following field:

2. SELECT OPTION (1, 2, or 3):

Type **END** and press the **Enter** key. The **install** utility will display the Thoroughbred Basic Utilities Menu:

```
mm/dd/yy - T0          THOROUGHBRED BASIC UTILITIES              hh:mm:ss
                             system information

 1)*APSD - PRINT DISC DIRECTORY        13) *MPSD - DISPLAY TASK ALLOCATION
 2)*BPSD - BUILD FILESET LIST          14) *NPSD - TERMINAL CONFIGURATOR
 3)*CPSD - COMPARE PROGRAMS            15) *OPSD - DEFINE FILES
 4)*DPSD - RENAME PROGRAMS/FILES       16) *PPSD - RENUMBER PROGRAMS
 5)*EPSD - ERASE PROGRAMS/FILES        17) *QPSD - STRING SEARCH AND REPLACE
 6)*FPSD - DISPLAY FILE PARAMETERS     18) *RPSD - OBJECT FILE MAINTENANCE
 7)*GPSD - GHOST TASK COMMUNICATIONS   19) *SPSD - TRANSFER PROGRAMS/FILES
 8)*HPSD - LIST PROGRAMS ON TERMINAL   20) *TPSD - FILE TRANSFER AND EXPAND
 9)*IPSD - HEX FILE DUMP               21) *XPSD - CHANNEL CROSS REFERENCE
10)*JPSD - INITIALIZE DISC ENVIRONMENT 22) BASIC - GOTO BASIC CONSOLE MODE
11)*KPSD - LIST PROGRAMS               23) OS    - EXIT TO OPERATING SYSTEM
12)*LPSD - LIST DISC DIRECTORY


ENTER SELECTION OR CR TO END:
```

You must enter a valid value in the following field:

ENTER SELECTION OR CR TO END:

Copyright © 2026 Thoroughbred Software International, Inc.

Type the number for the **EXIT TO OPERATING SYSTEM** command and press the **Enter** key. The **install** utility will display the Installation and Updating Procedures screen:

```
    Thoroughbred BASIC Installation and Updating Procedures


                1)  Install New System
                2)  Install/Update User Logins
                3)  Install/Update BASIC Directories
                4)  Install/Update BASIC Printers
                5)  Install/Update BASIC Terminals
                6)  Install/Update BASIC Ghost Tasks


                Enter Selection (1 - 6) or <CR> to end:
```

You must enter a valid value in the following field:

Enter Selection (1 - 6) or <CR> to end:

To leave the **install** utility and return to the operating system prompt, press the **Enter** key.

Copyright © 2026 Thoroughbred Software International, Inc.

HOW TO ESTABLISH PRINTERS

If you have just finished installing Thoroughbred Basic, you can use the information in the following sections to specify how Thoroughbred Basic interacts with your site printers:

- To make a printer available to Thoroughbred Basic you can use the procedure and information in the section titled *How to Make Printers Available*. Thoroughbred Basic can work with two types of printers:

  1. Direct or spooled printers, which are available to all users.

  2. Slave printers, which are attached to one terminal and available only to that terminal.

- To make a printer unavailable to Thoroughbred Basic you can use the procedure and information in the section titled *How to Make a Printer Unavailable*.

- To exit from the **install** utility, you can use the procedure in the section titled *How to Leave the Install Utility*.

- To ensure that Thoroughbred Basic can make full and efficient use of slave printers, you can use the information in the section titled *Considerations for Slave Printers*.

- Printer mnemonics are variables that contain codes or characters that can be interpreted by a printer driver. For more information on how printer mnemonics can be used in Thoroughbred Basic programs, please refer to the information in the section titled *How to Use Printer Mnemonics*.

If you plan to establish a site printer as part of the terminal definition procedures described in *How to Establish Terminals*, you can use the information in the sections titled *How to Make Printers Available* and *How to Leave the Install Utility* to define a site printer to Thoroughbred Basic.

Copyright © 2026 Thoroughbred Software International, Inc.

How to Make Printers Available

From the operating system prompt in your Thoroughbred Basic home directory type

./install

and press the **Enter** key. The **install** utility will display the Installation and Updating Procedures Menu:

```
Thoroughbred BASIC Installation and Updating Procedures


            1)  Install New System
            2)  Install/Update User Logins
            3)  Install/Update BASIC Directories
            4)  Install/Update BASIC Printers
            5)  Install/Update BASIC Terminals
            6)  Install/Update BASIC Ghost Tasks


            Enter Selection (1 - 6) or <CR> to end:
```

You must enter a valid value in the following field:

Enter Selection (1 - 6) or <CR> to end:

To define a printer type **4** and press the **Enter** key. The **install** utility will display the Install/Update BASIC Printers screen:

```
4) Install/Update BASIC Printers

        Currently Defined Printers

        BASIC   line            slave           unix
        device  width   spool   printer lock    device

        LP -    132     no      no      yes     lp
        P7 -    132     no      no      yes     null

        Add or Delete? Enter a, d or <CR> to end:
```

You must enter a valid value in the following field:

Add or Delete? Enter a, d, or <CR> to end:

To define a printer and add it to the list of available printers, type **a** and press the **Enter** key. The following message will be displayed:

Copyright © 2026 Thoroughbred Software International, Inc.

Enter BASIC device name (LA-Z, L1-9, PA-PZ, P1-P9) or <CR> to end:

Type a valid printer device name and press the **Enter** key. The following message will be displayed:

Is this device a slave printer? Enter y or n (<CR>=n):

Y means the device is a slave printer. For more information on slave printers, please refer to *Consideration for Slave Printers*

N means the device is a direct or spooled printer.

After you enter a valid value, the following message will be displayed:

Is this device spooled? Enter y or n (<CR>=n):

Y means the device is a spooled printer. If you type **Y** and press the **Enter** key, the following message will be displayed:

Enter spooling program name:

Type the name of the printer's spooling program and press the **Enter** key.

N means the device is a direct printer. If you type **N** and press the **Enter** key, the following message will be displayed:

Enter unix device name:

Type the name of the UNIX device associated with the printer and press the **Enter** key.

After you enter the name of a spooling program or a UNIX device, the following message will be displayed:

Enter printer line width 32-255 or <CR> (<CR>=132):

Type a valid value for line width and press the **Enter** key. The following message will be displayed:

Is this an exclusive use device? Enter y or n (<CR>=y):

Y means the printer is available to only one Thoroughbred Basic task at any one time.

N means the printer is available to more than one Thoroughbred Basic task at any one time.

After you enter a valid value, the **install** utility will redisplay the Install/Update BASIC Printers screen, which contains the current list of printers available to Thoroughbred Basic.

You can make more printers available to Thoroughbred Basic. If you are establishing a site printer as part of the terminal definition procedures described in *How to Establish Terminals*, please refer to the section titled *How to Leave the Install Utility*.

Copyright © 2026 Thoroughbred Software International, Inc.

How to Make a Printer Unavailable

To make a printer unavailable to Thoroughbred Basic, use the **install** utility to display the Install/Update BASIC Printers screen:

```
4) Install/Update BASIC Printers

        Currently Defined Printers

        BASIC   line            slave           unix
        device  width   spool   printer lock    device

        LP -    132     no      no      yes     lp
        P7 -    132     no      no      yes     null

        Add or Delete? Enter a, d or <CR> to end:
```

You must enter a valid value in the following field:

Add or Delete? **Enter a**, **d**, **or <CR> to end**:

To delete a printer from the list of available printers, type **d** and press the **Enter** key. The following message will be displayed:

Enter basic device name (LA-Z, L1-9, PA-PZ, P1-P9) or <CR> to end:

Type a valid printer device name and press the **Enter** key. The printer will be unavailable to Thoroughbred Basic. The **install** utility will redisplay the Install/Update BASIC Printers screen, which contains the current list of printers available to Thoroughbred Basic.

Copyright © 2026 Thoroughbred Software International, Inc.

How to Leave the Install Utility

To stop making printers available or unavailable to Thoroughbred Basic, make sure the **install** utility is displaying the Install/Update BASIC Printers screen:

```
4) Install/Update BASIC Printers

        Currently Defined Printers

        BASIC   line            slave           UNIX
        device  width   spool   printer lock    device

        LP -    132     no      no      yes     lp
        P7 -    132     no      no      yes     null

        Add or Delete? Enter a, d or <CR> to end:
```

You must enter a valid value in the following field:

Add or Delete? **Enter a**, **d**, **or <CR> to end**:

Press the **Enter** key. The **install** utility will display the Installation and Updating Procedures screen.

```
Thoroughbred BASIC Installation and Updating Procedures


            1)  Install New System
            2)  Install/Update User Logins
            3)  Install/Update BASIC Directories
            4)  Install/Update BASIC Printers
            5)  Install/Update BASIC Terminals
            6)  Install/Update BASIC Ghost Tasks


            Enter Selection (1 - 6) or <CR> to end:
```

You must enter a valid value in the following field:

Enter Selection (1 - 6) or <CR> to end:

To leave the **install** utility and return to the operating system prompt, press the **Enter** key.

Copyright © 2026 Thoroughbred Software International, Inc.

Considerations for Slave Printers

NOTE: You can skip the information in this section if:

- Your site does not have slave printers.
- You do not plan to make slave printers available to Thoroughbred Basic.
- You have made slave printers available to previous versions of Thoroughbred Basic.

A slave printer is a printer connected to a terminal's auxiliary or printer port and available only to that terminal. For information on communications between the terminal and the slave printer, please refer to your terminal or printer reference manuals.

Thoroughbred Basic slave printer support is available for the Televideo 950, Wyse 50 and Wyse 60 terminals. Support may be available for terminals that emulate these terminals as well as for some terminals that provide similar implementations of the Transparent Print Mode. For more information, please contact your Thoroughbred dealer.

To specify a slave printer, find the Thoroughbred Basic IPL file. In most cases, the file is named IPLINPUT, which is the default. You can open the file with vi or some other text editor. For more input on the *IPLINPUT File*, please refer to the Thoroughbred Basic Customization and Tuning Guide – System Files.

In the IPL file, find the **DEV** statement that contains the specification for the slave printer. A sample listing follows:

DEV P1,4,,80,2,,tty

DEV begins the device statement.

P1 is an internal device name. In this example, the internal device name is **P1**.

4 means the device type is a printer.

80 is the printer's line width.

2 means that the printer is a slave printer.

tty is the device name specified in the **/dev** directory. Other terminals can be referenced explicitly by their UNIX device names, e.g., **tty1**, **tty2**, and so on.

The device name, **tty** in this example, must be the same as the device name of the first **DEV** line that specifies a terminal. If the device names are different, Thoroughbred Basic will ignore the slave printer.

Copyright © 2026 Thoroughbred Software International, Inc.

Use the information in the section titled *Consider Terminal Mnemonics* to check the relevant terminal table. The table must define the **PS** (print start) and **PE** (print end) mnemonics:

- For a Televideo 1950, **PS** must be **$1B60** and **PE** must be **$1B6**.
- For a Wyse 50, **PS** must be **$18** and **PE** must be **$14**.
- For a Wyse 60, **PS** must be **$1B6423** and **PE** must be **$14**.

If **PS** and **PE** are not defined, the output to the slave printer will go to the control terminal. For more information on these mnemonics, please refer to the section titled *Consider Terminal Mnemonics* and *Introduction to Terminal Mnemonics*.

There are some rules and guidelines that may help you efficiently use slave printers:

- Because the system uses the XON/XOFF protocol to control data flow, you should not use the **Ctrl-S** or **Ctrl-Q** keystroke sequences on a terminal with an active slave printer.
- In most cases, pressing the **Escape** key has no effect until output to a terminal or slave printer stops. If output is suspended because of an XOFF from the printer or terminal, or because of a **Ctrl-S** keystroke sequence, pressing the **Escape** key will have no effect until XON or a **Ctrl-Q** keystroke sequence is received; either action enables the system to finish sending buffered output. You may have to press the **Escape** key several times to exit slave printing.
- If the slave printer becomes unready, e.g., it ran out of paper or was taken off-line, its terminal will send an XOFF to the host system and then suspend operation. You cannot restore it to ready condition unless you specify a time out in Thoroughbred Basic.

  In some cases, you may need more than a Thoroughbred Basic time out. Interaction with the operating system time out control may prevent you from easily restoring the ready condition.

How to Use Printer Mnemonics

Printer mnemonics are variables that can be interpreted by a printer driver. Use of printer mnemonics can speed application development by ensuring that programmers will not have to remember or look up code sequences, by providing naming conventions for actions that can occur on a number of site printers, and by helping programmers produce more readable code.

These mnemonics are specified and defined in printer mnemonic tables. You can create and load printer mnemonic tables other than the default printer table already installed with your system.

Copyright © 2026 Thoroughbred Software International, Inc.

The Default Mnemonic Table

The default mnemonic table consists of the following mnemonic codes and escape sequences:

Line feed	**LF**	**$0D0A$**
Carriage return	**CR**	**$0D$**
Form feed	**FF**	**$0C$**
Escape	**ES**	**$1B$**
Ring bell	**RB**	**07**
Expanded print	**EP**	**N/A**

Requirements for Printer Mnemonic Tables

A mnemonic code must contain between 2-31 characters.

The line feed mnemonic's escape sequence must be set up as a carriage return and line feed (CRLF).

The 2-character mnemonic codes for line feed, carriage return, form feed, and escape must be in every mnemonic table. If any of these codes are not in a table maintained by Dictionary-IV, then each nonexistent mnemonic code and its default escape sequence will be inserted during mnemonic table record generation. The counting of these lines will be incorrect and scrolling will not be done properly.

Mnemonic Table Maintenance

All printer mnemonic tables, except for the default, are maintained in Dictionary-IV. A mnemonic table record is generated after a table is edited and a printer assignment is specified. It is stored in the IDDBD file. For further information on printer mnemonic tables, please refer to the Thoroughbred Dictionary-IV Reference Manual.

How to Load a Printer Mnemonic Table

During the startup of Thoroughbred Basic, printer assignments in Dictionary-IV are compared to printers configured in the IPLINPUT file. If a valid printer assignment record and mnemonic table record exists in Dictionary-IV for a printer in the IPLINPUT file, then that mnemonic table is loaded; otherwise, the default mnemonic table is loaded. Once a mnemonic table has been loaded, it remains in memory for that printer until another table is loaded.

A mnemonic table may also be loaded after Thoroughbred Basic has been started. There are four different ways of loading it after the initial installation. These four ways are illustrated in the following examples:

OPEN (1,OPT="INITTAB")"PO"

reloads the initial mnemonic table by specifying the **"INITTAB"** option during the **OPEN** statement for the printer.

Note: Any changes made to printer assignments or mnemonic tables in Thoroughbred Dictionary-IV since Thoroughbred Basic was started are reflected.

Copyright © 2026 Thoroughbred Software International, Inc.

OPEN (1,OPT="TABLE=HPLJ+")"PO"

loads another table from the IDDDB file by specifying the **"TABLE="** option during the **OPEN** statement for the printer.

Note: The **OPEN**ing of the printer fails with an **ERR=20** if the specified table name is longer than 6 characters or fails with an **ERR=11** if the specified mnemonic table does not exist.

OPEN (1) "PO"
PRINT (1) 'LT', HTA(TABLE$), 'LE'

works when hand-loading a mnemonic table after a channel to the printer has been **OPEN**ed. The table is loaded by the **PRINT** directive using the **HTA** function, and the load table (**'LT'**) and load end (**'LE'**) mnemonics.

Note: When a mnemonic table is loaded in this fashion, the name portion of the string returned by the **DSD** function is padded with spaces.

OPEN (1) "PO"
PRINT (1) 'LT', 'LE'

works when hand-loading the initial mnemonic table after a channel to the printer has been **OPEN**ed. The table is loaded by the **PRINT** directive using the load table and load end mnemonics.

Copyright © 2026 Thoroughbred Software International, Inc.

How to Use a Mouse

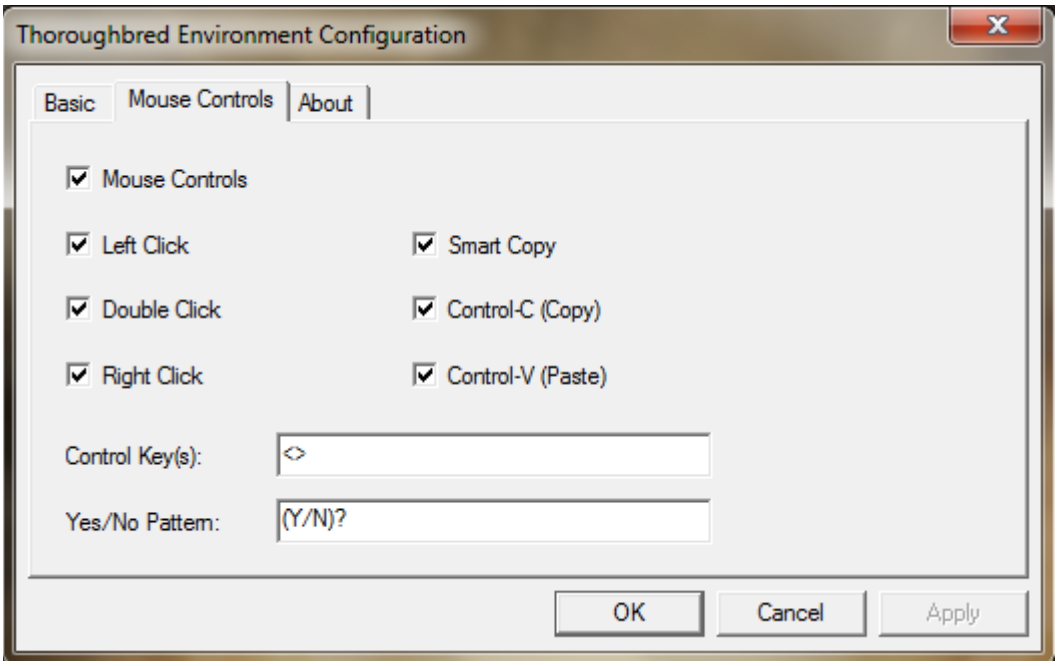
This section only applies to TS Environment for Windows and TS Network Basic with DataServer. For all other Basic ports, TbredComm is required for mouse functionality. Please refer to the TbredComm manual for those details.

Dictionary-IV based applications are fully mouse aware. For a mouse aware character-based interface, simply enable the mouse.

NOTE: 3GL applications do require some programming to capture and process mouse events.

Mouse Functions

By default, mouse functionality is not enabled. To enable the mouse, execute the Thoroughbred Environment Configuration by executing C:\Program Files\Tbsc\TBConfig.exe and then click on the Mouse Controls tab.



Mouse Controls
Check to enable the mouse.

Left Click
Check to enabled left click.

Double Click
Check to enable double click.

Right Click
Check to enable right click.

Copyright © 2026 Thoroughbred Software International, Inc.

Smart Copy
Check to enable smart copy. This option determines how to highlight multiple lines of text. When smart copy is disabled, the selection of multiple lines of text will wrap around the end of each line. When smart copy is enabled, the selection of multiple lines of text will not wrap around the end of each line, allowing the selection of a column.

Control-C (Copy)
Check to enable the ability to copy text using the Ctrl+C keys.

Control-V (Paste)
Check to enable the ability to paste text using the Ctrl+V keys.

Control Keys
Control keys are identified by a starting and ending character, for example type **"<>"** in the Control Key text box. When the user clicks in an area encompassed by the start and end characters, the text will be interpreted. If the text contains a known control key code, then that control key will be posted to the Basic INPUT statement.

Multiple Control Key values can be defined. Use a comma to separate entries. For example, type **"<>", "()","{}"** in the Control Key text box.

For example, if you type "<>" in the Control Key(s) text box, clicking on the "F" or the "4" in <F4> returns a CTL value of 4.

For example:

```
[MOUSE]
yesno=(*/*)?
controlkey=<>
```

Yes/No Pattern
The Yes and No characters are identified by a starting, ending and separator character, for example (Y/N).

(is the start character
) is the end character
/ is the separator character

When the user clicks in an area encompassed by the starting and separator character or the separator and ending character, the text will be interpreted. If the text matches the yes/no pattern, the clicked character will be posted to the Basic INPUT statement. Only a single character is sent to INPUT, this is equivalent to an INPUT SIZ=1.

For example, if you type "(Y/N)" in the Yes/No Pattern text box, clicking on the "Y" in (Y/N)? returns a **Y**. Clicking on the "N" (Y/N)? returns an **N**.

Copyright © 2026 Thoroughbred Software International, Inc.

Mouse Events

Mouse events are trigged by posting a CTL value to a Basic INPUT statement. In most cases, a mouse event requires two INPUTs. The first receives the leading CTL value identifying the type of mouse event. The second input receives the data specific to the mouse event followed by a <CR>. The following is a summary of mouse events.

Left Single Click	**<-20> + *ccc* + *rrr* + <CR>**
Left Double Click	**<-21> + *ccc* + *rrr* + <CR>**
Right Single Click	**HOTKEY *value***
Control Keys	***Function-key-CTL-values***
Yes/No Prompts	***Yes/No-character***

Click Event
When the user clicks, Basic INPUT will receive:

<-20> + *ccc* + *rrr* + <CR>

<-20> is a CTL=-20 identifying a mouse click event.
ccc is the three-byte column position where the mouse was clicked.
rrr is the three-byte row position where the mouse was clicked.
<CR> is a carriage return.

Basic INPUT statements must be modified to anticipate and collect the click event. Collect the first byte from the input buffer to determine if a mouse click event has occurred (CTL=-20). If true, collect the column and row position from the input buffer. At this point the 3GL application code can execute the appropriate click logic. If false, collect the remaining operator input (keystrokes) from the input buffer.

For example:

```
INPUT EDT (0,SIZ=1) OPERI$;          ! Collect 1 byte of operator input
IF CTL=-20                           ! If mouse click event
   INPUT 'EE',CLICK$,'BE',           !   Turn echo off, collect click data, turn echo on
   C=NUM(CLICK$(1,3)),               !   Get the click column position
   R=NUM(CLICK$(4,3));               !   Get the click row position
   GOSUB CLICK                       !   Go process the click logic
ELSE                                 ! else
   INPUT OPERI$;                     !   Collect remaining operator input (keystrokes)
FI;                                  ! endif
```


Copyright © 2026 Thoroughbred Software International, Inc.

Double Click Event
When the user double clicks Basic INPUT will receive:

```
<-21> + ccc + rrr + <CR>
```

<-21> is a CTL=-21 identifying a mouse double click event.
ccc is the three-byte column position where the mouse was clicked.
rrr is the three-byte row position where the mouse was clicked.
<CR> is a carriage return.

Basic INPUT statements must be modified to anticipate and collect the double click event. This is similar to the click event. Please see "Click Event" above for details.

Right Mouse Click Event – HotKey Event
The right mouse click event is tied to the Basic HOTKEY directive invoking the current HOTKEY process in Basic. For example, a right mouse click from within OPENworkshop will display the HOTKEY menu OOMU10; this is equivalent to a typing a Ctrl-P. Please refer to the Basic Language Reference manual for more information on SET HOTKEY. Please refer to the Dictionary-IV manuals for more information on the Desk Services/HotKey menu (Ctrl-P) processing.

3GL applications that already take advantage of the HOTKEY directive do not require any modifications for support of the right mouse click event. The right mouse click event simply posts the HotKey CTL value, and no additional information is posted to the input buffer.

In the following example after executing the SET HOTKEY directive, a mouse click sends a CTL=-15 to Basic. This executes the program “MYPGN”.

```
SET HOTKEY $10$, "MYPGN"
```

Control Key Events
Control key events are designed to work with Basic, Dictionary-IV and OPENworkshop function key prompts. For example:

```
Press <F1> to continue
```

Control keys are identified by a start and ending character, for example "<>". When the user clicks in an area encompassed by the start and end characters, the text will be interpreted. If the text contains a known control key code, then that control key will be posted to the Basic INPUT statement.

In the following example clicking on the "F" or the "2" in <F2> returns CTL=2. Clicking on the "F" or the "6" in <F6> returns CTL=6. Clicking on the "F" or the "4" in <F4> returns CTL=4.

```
Enter: <F2> LookUp <F6> Help <F4> End
```

In the following example clicking on the "F" or the "2" in (F2) returns CTL=2. Clicking on the "F" or the "6" in (F6) returns CTL=6. Clicking on the "F" or the "4" in (F4) returns CTL=4.

```
Enter: (F2) LookUp (F6) Help (F4) End
```


Copyright © 2026 Thoroughbred Software International, Inc.

Multiple control key values can be defined with entries separated by commas "<>,[],{},(), F-,F=" for example.

Yes/No Events
The Yes/No events are designed to work Yes/No prompts. For example:

```
Do you want to continue (Y/N)?
```

The Yes No characters are identified by a start, ending character and a separator character. When the user clicks in an area encompassed by the start and end characters, the text will be interpreted. If the text matches the yes/no pattern, the clicked character will be posted to the Basic INPUT statement.

3GL applications may need to be modified. The Yes/No event will post a single character to the input buffer. For Yes/No events an INPUT SIZ=1 must be used.

In the following example clicking on the "Y" in (Y/N)? returns Y. Clicking on the "N" (Y/N)? returns N.

```
Do you want to continue (Y/N)?
```

In the following example clicking on the “J” in [J-N]? returns J. Clicking on the "N" in [J-N]? returns N.

```
Do you want to continue [J-N]?
```


Copyright © 2026 Thoroughbred Software International, Inc.

HOW TO ESTABLISH DIRECTORIES

You can specify a list of directories that Thoroughbred Basic will search to find files specified by Thoroughbred Basic directives. The list of directories is stored in the initial program load (IPL) file. When a user starts Thoroughbred Basic, the information in the IPL file is loaded into memory. If the user does not specify an IPL file, Thoroughbred Basic uses the IPLINPUT file, which is the default.

An IPL file can specify up to 36 directories that will be available to Thoroughbred Basic. Use one of the following methods to modify an IPL file:

- Edit a Thoroughbred Basic IPL file with vi or some other text editor. You can use this method to create and customize IPL files for each user. Because you can specify directories in more than one IPL file, you can create as many IPL files as you need. For more information on IPL files, please refer to the information on the *IPLINPUT File* in the Thoroughbred Basic Customization and Tuning Guide – System Files.

- Use the procedures and information in this section. The **install** utility can automatically create directories and update the default IPLINPUT file.

You can use the information in the following sections to specify which directories are available to Thoroughbred Basic:

- To make a directory available to Thoroughbred Basic you can use the procedure and information in the section titled *How to Make Directories Available*. Thoroughbred Basic handles new directory specifications in two ways:

    1. If the specified directory exists, the **install** utility makes it available to Thoroughbred Basic.

    2. If the specified directory does not exist, the **install** utility creates it, and then makes it available to Thoroughbred Basic.

- To make a directory unavailable to Thoroughbred Basic you can use the procedure in the section titled *How to Make Directories Unavailable*.

- To stop making directories available or unavailable to Thoroughbred Basic, you can use the procedure in the section titled *How to Leave the Install Utility*.

- To set up subdirectories for more efficient file management, you can use the information in the section titled *How to Setup Subdirectories*.

- To speed Thoroughbred Basic execution time, you can make directories temporarily unavailable to Thoroughbred Basic. For more information, please refer to the procedure in the section titled *How to Make Directories Temporarily Unavailable*.

If you plan to create a list of directories that Thoroughbred Basic will search, you can use the information in the sections titled *How to Make Directories Available* and *How to Leave the Install Utility* to place directory specifications in the IPLINPUT file.

Copyright © 2026 Thoroughbred Software International, Inc.

How to Make Directories Available

From the operating system prompt in your Thoroughbred Basic home directory type

./install

and press the **Enter** key. The **install** utility will display the Installation and Updating Procedures Menu:

```
Thoroughbred BASIC Installation and Updating Procedures


            1)  Install New System
            2)  Install/Update User Logins
            3)  Install/Update BASIC Directories
            4)  Install/Update BASIC Printers
            5)  Install/Update BASIC Terminals
            6)  Install/Update BASIC Ghost Tasks


            Enter Selection (1 - 6) or <CR> to end:
```

You must enter a valid value in the following field:

Enter Selection (1 - 6) or <CR> to end:

To make a directory available to Thoroughbred Basic, type **3** and press the **Enter** key. The **install** utility will display the Install/Update BASIC Directories screen:

```
3) Install/Update BASIC Directories

        Currently Defined Directories


        0 - UTILS
        1 - IDL4
        2 - WORK

        Add or Delete? Enter a, d or <CR> to end:
```

You must enter a valid value in the following field:

Add or Delete? Enter a, d, or <CR> to end:

To add a directory, type **a** and press the **Enter** key. The following message will be displayed:

ENTER DIRECTORY NAME:

Copyright © 2026 Thoroughbred Software International, Inc.

A valid directory name is 1 through 64 characters long. If you do not specify a full directory path, the specified directory is created as a subdirectory of the Thoroughbred Basic home directory.

Type a valid directory name and press the **Enter** key. The **install** utility will take one of the following actions:

- If the directory does not already exist it will create the directory, then put the directory name in the IPLINPUT file.
- If the directory already exists, it will put the directory name in the IPLINPUT file.

Then, the **install** utility will redisplay the Install/Update BASIC Directories screen, which will contain the current list of directories available to Thoroughbred Basic. The IPLINPUT file can contain up to ten directories.

If you have finished specifying directories and want to leave the **install** utility, please refer to the section titled *How to Leave the Install Utility*.

How to Make Directories Unavailable

To make a directory unavailable to Thoroughbred Basic, and delete the directory specification from the IPLINPUT file, use the **install** utility to display the Install/Update BASIC Directories screen:

```
3) Install/Update BASIC Directories

        Currently Defined Directories


        0 - UTILS
        1 - IDL4
        2 - WORK

        Add or Delete? Enter a, d or <CR> to end:
```

You must enter a valid value in the following field:

Add or Delete? Enter a, d, or <CR> to end:

To delete a directory from the IPLINPUT file, type **d** and press the **Enter** key. The following message will be displayed:

ENTER DIRECTORY NAME:

Valid directory names are displayed on the Install/Update BASIC Directories screen. Type the name of the directory you plan to delete and press the **Enter** key.

Copyright © 2026 Thoroughbred Software International, Inc.

The **install** utility removes the directory specification from the IPLINPUT file. It does not delete the directory. To delete the directory, you must use the UNIX rmdir command.

The **install** utility will redisplay the Install/Update BASIC Directories screen, which will contain the current list of directories available to Thoroughbred Basic.

How to Leave the Install Utility

To stop making directories available or unavailable to Thoroughbred Basic, make sure the **install** utility is displaying the Install/Update BASIC Directories screen:

```
3) Install/Update BASIC Directories

        Currently Defined Directories


        0 - UTILS
        1 - IDL4
        2 - WORK

        Add or Delete? Enter a, d or <CR> to end:
```

You must enter a valid value in the following field:

Add or Delete? Enter a, d, or <CR> to end:

Press the **Enter** key. The **install** utility will display the Installation and Updating Procedures screen:

```
Thoroughbred BASIC Installation and Updating Procedures


            1)  Install New System
            2)  Install/Update User Logins
            3)  Install/Update BASIC Directories
            4)  Install/Update BASIC Printers
            5)  Install/Update BASIC Terminals
            6)  Install/Update BASIC Ghost Tasks


            Enter Selection (1 - 6) or <CR> to end:
```


Copyright © 2026 Thoroughbred Software International, Inc.

You must enter a valid value in the following field:

Enter Selection (1 - 6) or <CR> to end:

To leave the **install** utility and return to the operating system prompt, press the **Enter** key.

How to Setup Subdirectories

Organizing files in subdirectories can help Thoroughbred Basic increase execution speed by cutting the time required to locate program or data files. When a program looks for a file, it begins the search at the top of the directory listing and checks each directory entry in turn. In a large directory, with the target file way down on the list, this search method can take a lot of time.

Some applications reduce search time by using the first characters of the file name like a mask. Files are grouped by the first characters of their names into subdirectories.

To create Thoroughbred Basic subdirectories, you can use the following procedure:

1. Use one of the directories you have added to Thoroughbred Basic as a parent directory or add a new directory. If you need to add a directory, you can use the information in the section titled *How to Make Directories Available*. The directory you choose or create will serve as the parent directory for as many subdirectories as you need to create.

2. Edit the initial program load (IPL) file.

   Locate the Thoroughbred Basic IPL file. In most cases, the file is named IPLINPUT, which is the default. Open the file with vi or some other text editor.

   Find the **DEV** statement that contains the name of the parent directory. For example, if the parent directory is named **MKTG**, the **DEV** statement may be specified as:

   DEV D3,1,,,,,,MKTG

   This statement makes the **MKTG** directory available to Thoroughbred Basic on directory or disk number **3**. To enable subdirectories for **MKTG**, you must specify a subdirectory flag after the fourth comma, for example:

   DEV D3,1,,,1,,,MKTG

   Valid values for the subdirectory flag are **1** through **9**. The flag tells Thoroughbred Basic that subdirectories exist and, with one exception, specifies the length of each subdirectory name. The exception is illustrated in the above example: if you specify **1** for the subdirectory flag, each subdirectory name must be three characters long, so specifying **1** is equivalent to specifying **3**.

   After you edit the **DEV** statement, save the IPL file and exit from the text editor.

3. Use the **mkdir** command to create 3-character subdirectory names under the parent directory. There are a few rules and guidelines that can help you make more use of subdirectories:

Copyright © 2026 Thoroughbred Software International, Inc.

- Valid subdirectory names contain the number of characters specified by the subdirectory flag. For example, is you specified **7** as the value of the subdirectory flag, each subdirectory name must be exactly seven characters long. The only exception to this rule is the **USR** subdirectory, which is described below.

- A file is a matching file if its first characters are a match for the name of a subdirectory. Matching files will be placed in the subdirectory they match.

- You must create the **USR** subdirectory. Files with names that do not match the name of any other subdirectory will be put in the **USR** subdirectory.

- You can add or delete subdirectories as needed. If you delete a subdirectory, you will delete all the data files in that subdirectory: you may want to back up the data files before you delete the subdirectory.

For more information on IPL files, please refer to the Thoroughbred Basic Customization and Tuning Guide – System Files.

How to Make Directories Temporarily Unavailable

Making directories temporarily unavailable can help Thoroughbred Basic increase execution speed by reducing the time required to locate program or data files. When a Thoroughbred Basic program looks for a file, it searches through all the directories available to Thoroughbred Basic until it finds the file. Under some circumstances, such as a search for a file that does not exist, this process can take lots of time.

You can cut search time by making directories temporarily unavailable to Thoroughbred Basic. Execution speed will increase when you narrow the scope of the search.

You can use the ***JPSD** Utility to make directories unavailable to Thoroughbred Basic. Use one of the following methods to start the ***JPSD** Utility:

- In Thoroughbred Basic Console Mode, type **RUN "*JPSD"** and press the **Enter** key.

- On the Thoroughbred Basic Utilities Menu screen, type ***JPSD** or the number that corresponds to the *JPSD Utility and press the **Enter** key.

Copyright © 2026 Thoroughbred Software International, Inc.

Thoroughbred Basic will display the *JPSD - INITIALIZE DISC ENVIRONMENT screen:

```
*JPSD - INITIALIZE DISC ENVIRONMENT                    date

 # ID VOLUME                          S
 0 D0 UTILS                           *
 1 D1 IDL4                            *
 2 D2 WORK                            *
 8 D3 APP1                            *
17 DH APP2                            *

Enter Disk ID code(s) to change:


     F6 - Help
```

An * (asterisk) next to the volume name means that the directory is available to Thoroughbred Basic. To change availability, you must specify a valid value in the following field:

Enter Disk ID code(s) to change:

Type the second character of the ID value for the directory you want to make available or unavailable and press the **Enter** key. For example, to make the APP2 directory displayed on the above sample screen unavailable, type **H** and press the **Enter** key.

Thoroughbred Basic will redisplay the *JPSD - INITIALIZE DISC ENVIRONMENT screen, which will contain the current list of available and unavailable directories.

```
*JPSD - INITIALIZE DISC ENVIRONMENT                    date

 # ID VOLUME                          S
 0 D0 UTILS                           *
 1 D1 IDL4                            *
 2 D2 WORK                            *
 8 D3 APP1                            *
17 DH APP2

Enter Disk ID code(s) to change:


     F6 - Help
```

To make APP2 available, you can type **H** and press the **Enter** key. To leave the *JPSD Utility, press the **Enter** key.

For more information on the *JPSD Utility, please refer to the Thoroughbred Basic Utilities Manual. If you are displaying the *JPSD - INITIALIZE DISC ENVIRONMENT screen, you can press the **F6** key for on-line help.

Copyright © 2026 Thoroughbred Software International, Inc.

HOW TO ESTABLISH GHOST TASKS

A ghost task is a background task that operates without a terminal or keyboard. You can start a ghost task from a user task, but a ghost task cannot interact with a terminal. For more information on ghost tasks, please refer to the Thoroughbred Basic Developer Guide and to the description of the ***GPSD** Utility in the Thoroughbred Basic Utilities Manual.

Thoroughbred Basic can support up to 62 ghost tasks. Depending on system resources the actual number that can run at any one time may be smaller. To run ghost tasks, Thoroughbred Basic requires a shared memory segment, which was created during installation, and an appropriate number of semaphores. Each ghost task requires one semaphore ID.

To make sure you have enough semaphores, check the values specified for the following tunable parameters against their minimum recommended values:

SEMMAP (entries in semaphore map):	**62**
SEMMNI (semaphore identifiers):	**62**
SEMMNS (semaphores in system):	**186**

An IPL file can specify up to 62 ghost tasks that will be available to Thoroughbred Basic. Use one of the following methods to modify an IPL file:

- Edit a Thoroughbred Basic IPL file with vi or some other text editor. You can use this method to create and customize IPL files for each user. For more information on IPL files, please refer to the information on the *IPLINPUT File* in the Thoroughbred Basic Customization and Tuning Guide – System Files.

- Use the procedures and information in this section. The **install** utility can update the default IPLINPUT file.

You can use the information in the following sections to specify that ghost tasks are available to Thoroughbred Basic:

- To make a ghost task available to Thoroughbred Basic you can use the procedure in the section titled *How to Make Ghost Tasks Available*.

- To make ghost tasks unavailable to Thoroughbred Basic you can use the procedure in the section titled *How to Make Ghost Tasks Unavailable*.

- To stop making ghost tasks available or unavailable to Thoroughbred Basic, you can use the procedure in the section titled *How to Leave the Install Utility*.

If you plan to specify that ghost tasks will become available to Thoroughbred Basic, you can use the information in the sections titled *How to Make Ghost Tasks Available* and *How to Leave the Install Utility* to place ghost task specifications in the IPLINPUT file.

Copyright © 2026 Thoroughbred Software International, Inc.

How to Make Ghost Tasks Available

From the operating system prompt in your Thoroughbred Basic home directory type

./install

and press the **Enter** key. The **install** utility will display the Installation and Updating Procedures Menu:

```
    Thoroughbred BASIC Installation and Updating Procedures


                1)  Install New System
                2)  Install/Update User Logins
                3)  Install/Update BASIC Directories
                4)  Install/Update BASIC Printers
                5)  Install/Update BASIC Terminals
                6)  Install/Update BASIC Ghost Tasks


               Enter Selection (1 - 6) or <CR> to end:
```

You must enter a valid value in the following field:

Enter Selection (1 - 6) or <CR> to end:

To make ghost tasks available to Thoroughbred Basic, type **6** and press the **Enter** key. The **install** utility will display the following message:

Will BASIC use Ghost Tasks? (y/n):

N means that Thoroughbred Basic will not use ghost tasks. The **install** utility will return you to the Installation and Updating Procedures screen.

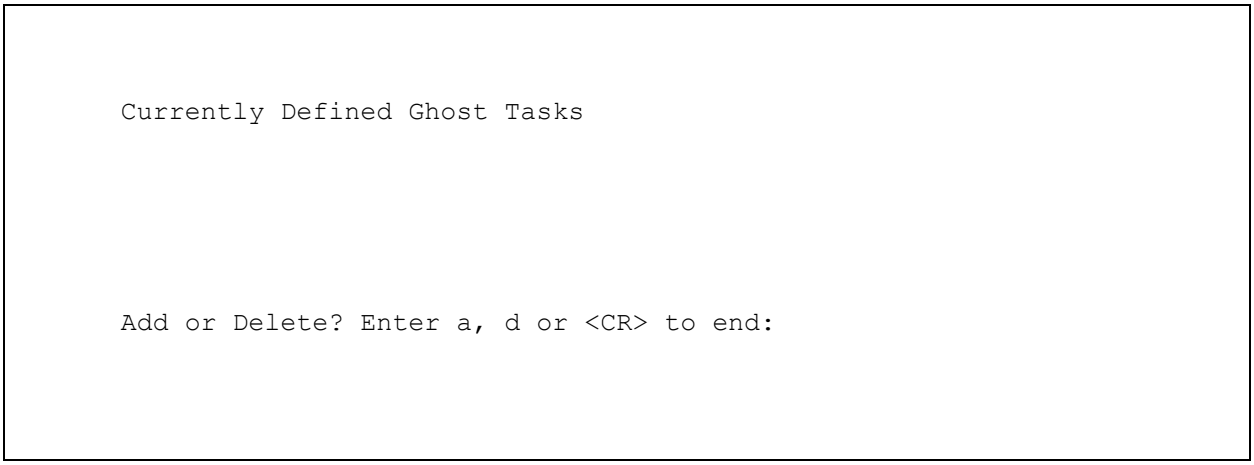
Y means that Thoroughbred Basic will use ghost tasks. The **install** utility will display the following message:

Ghost BASIC should be owned by user other than 'root'
Enter the login name to own basic:

The **root** directory contains files and directories that are vital to operating system performance. If **root** owns the Thoroughbred Basic ghost task facilities, then all Thoroughbred Basic users will have **root** permissions, which could cause problems like data corruption.

Copyright © 2026 Thoroughbred Software International, Inc.

To avoid this problem, you can specify a login name that will own the Thoroughbred Basic ghost task facilities. Type a valid login name and press the **Enter** key. The **install** utility will display the Install/Update BASIC Ghost Tasks screen:



You must enter a valid value in the following field:

Add or Delete? Enter a, d, or <CR> to end:

To make ghost tasks available to Thoroughbred Basic, type **a** and press the **Enter** key. The following message will be displayed:

Enter number of ghosts to add or <CR> to end:

You can specify the number of ghost tasks that will be available to Thoroughbred Basic. Valid values are **1** through **62**. Type a valid value and press the **Enter** key.

The **install** utility will generate a **DEV** statement for each ghost task you specified and put the DEV statements in the IPLINPUT file. For more information on the IPLINPUT file and the **DEV** statement, please refer to the Thoroughbred Basic Customization and Tuning Guide – System Files.

Copyright © 2026 Thoroughbred Software International, Inc.

Then, the **install** utility will redisplay the Install/Update BASIC Directories screen, which will contain the current list of ghost tasks available to Thoroughbred Basic. For example, if you specified **62** ghost tasks, the **install** utility will display the following screen:

```
       Currently Defined Ghost Tasks

        G0 G1 G2 G3 G4 G5 G6 G7 G8 G9 GA GB GC GD GE GF GG GH GI GJ
GK GL GM GN GO GP GQ GR GS GT GU GV GW GX GY GZ Ga Gb Gc Gd Ge Gf Gg Gh Gi Gj
Gk Gl Gm Gn Go Gp Gq Gr Gs Gt Gu Gv Gw Gx Gy Gz

       Add or Delete? Enter a, d or <CR> to end:
```

Thoroughbred Basic ghost task names range from **G0** through **G9, GA** through **GZ**, and **Ga** through **Gz** a total of 62 names. The sample screen above displays the 36 possible names.

If you have finished specifying the number of available ghost tasks and want to leave the **install** utility, please refer to the section titled *How to Leave the Install Utility*.

How to Make Ghost Tasks Unavailable

To make ghost tasks unavailable to Thoroughbred Basic, and delete the ghost task specifications from the IPLINPUT file, use the **install** utility to display the Install/Update BASIC Ghost Tasks screen:

```
       Currently Defined Ghost Tasks

        G0 G1 G2 G3 G4 G5 G6 G7 G8 G9 GA GB GC GD GE GF GG GH GI GJ
GK GL GM GN GO GP GQ GR GS GT GU GV GW GX GY GZ Ga Gb Gc Gd Ge Gf Gg Gh Gi Gj
Gk Gl Gm Gn Go Gp Gq Gr Gs Gt Gu Gv Gw Gx Gy Gz

       Add or Delete? Enter a, d or <CR> to end:
```

You must enter a valid value in the following field:

Add or Delete? Enter a, d, or <CR> to end:

Copyright © 2026 Thoroughbred Software International, Inc.

To delete ghost task specifications from the IPLINPUT file, type **d** and press the **Enter** key. The following message will be displayed:

Enter number of ghosts to delete or <CR> to end:

Valid values range from **1** through the number of available ghost tasks. Type a valid value and press the **Enter** key.

The **install** utility will remove ghost task specifications, in descending order, from the IPLINPUT file. Then, it will redisplay the Install/Update BASIC Ghost Tasks screen, which will contain the current list of ghost tasks available to Thoroughbred Basic. For example, if you had 36 available ghost tasks and removed 10, the following screen will be displayed:

```
       Currently Defined Ghost Tasks

        G0 G1 G2 G3 G4 G5 G6 G7 G8 G9 GA GB GC GD GE GF GG GH GI GJ
GK GL GM GN GO GP GQ GR GS GT GU GV GW GX GY GZ Ga Gb Gc Gd Ge Gf Gg Gh Gi Gj
Gk Gl Gm Gn Go Gp

       Add or Delete? Enter a, d or <CR> to end:
```

In this example, removing 10 ghost tasks removes the **GQ** through **GZ** specifications.

How to Leave the Install Utility

To stop making ghost tasks available or unavailable to Thoroughbred Basic, make sure the **install** utility is displaying the Install/Update BASIC Ghost Tasks screen:

```
       Currently Defined Ghost Tasks

        G0 G1 G2 G3 G4 G5 G6 G7 G8 G9 GA GB GC GD GE GF GG GH GI GJ
GK GL GM GN GO GP GQ GR GS GT GU GV GW GX GY GZ Ga Gb Gc Gd Ge Gf Gg Gh Gi Gj
Gk Gl Gm Gn Go Gp

       Add or Delete? Enter a, d or <CR> to end:
```


Copyright © 2026 Thoroughbred Software International, Inc.

You must enter a valid value in the following field:

Add or Delete? Enter a, d, or <CR> to end:

Press the **Enter** key. The **install** utility will display the Installation and Updating Procedures screen:

```
    Thoroughbred BASIC Installation and Updating Procedures


                1)  Install New System
                2)  Install/Update User Logins
                3)  Install/Update BASIC Directories
                4)  Install/Update BASIC Printers
                5)  Install/Update BASIC Terminals
                6)  Install/Update BASIC Ghost Tasks


                Enter Selection (1 - 6) or <CR> to end:
```

You must enter a valid value in the following field:

Enter Selection (1 - 6) or <CR> to end:

To leave the **install** utility and return to the operating system prompt, press the **Enter** key.

Copyright © 2026 Thoroughbred Software International, Inc.

HOW TO ESTABLISH USER LOGINS

Some operating systems enable you to create Thoroughbred Basic user logins from the **install** utility. These user logins allow users to login to Thoroughbred Basic, not to the operating system.

In most cases, the **install** utility will not allow you manage user logins with the procedures described in this section. Even if you can use these procedures, you must consider site conventions and security issues before you do.

The recommended way to manage any user login is to use the system administration capabilities of your operating system. To establish logins for Thoroughbred Basic, you can use the UNIX **adduser** command. If your system maintains passwords in the **/etc/shadow** file, skip this section.

If you decide to use the **install** utility to create Thoroughbred Basic user logins, you can use the information in the following sections:

- To create a Thoroughbred Basic user login, you can use the procedure in the section titled *How to Create User Logins*.
- To delete a Thoroughbred Basic user login, you can use the procedure in the section titled *How to Delete User Logins*.
- To stop creating or deleting Thoroughbred Basic user logins, you can use the procedure in the section titled *How to Leave the Install Utility*.

If you plan to specify Thoroughbred Basic user logins, you can use the information in the sections titled *How to Create User Logins* and *How to Leave the Install Utility*.

How to Create User Logins

From the operating system prompt in your Thoroughbred Basic home directory type

./install

and press the **Enter** key. The **install** utility will display the Installation and Updating Procedures Menu:

```
Thoroughbred BASIC Installation and Updating Procedures


            1)  Install New System
            2)  Install/Update User Logins
            3)  Install/Update BASIC Directories
            4)  Install/Update BASIC Printers
            5)  Install/Update BASIC Terminals
            6)  Install/Update BASIC Ghost Tasks


            Enter Selection (1 - 6) or <CR> to end:
```


Copyright © 2026 Thoroughbred Software International, Inc.

You must enter a valid value in the following field:

Enter Selection (1 - 6) or <CR> to end:

To create Thoroughbred Basic user logins, type **2** and press the **Enter** key. In most cases, the **install** utility will display the following version of the Install/Update User Logins screen:

```
2) Install/Update User Logins

            You must add and delete users using the System
            Administration commands supplied with your
            Operating System.

            <CR> to continue.
```

You cannot use the **install** utility to manage user logins. You must use the features inherent in your operating system. To leave this screen, press the **Enter** key. The Installation and Updating Procedures screen will be displayed.

If you want to leave the **install** utility, press the **Enter** key. You will be returned to your operating system prompt.

If the **install** utility can manage user logins, the following version of the Install/Update User Logins screen will be displayed:

```
2) Install/Update User Logins

        Current BASIC Users:

        root -



        Add or Delete? Enter a, d or <CR> to end:
```

You must enter a valid value in the following field:

Add or Delete? Enter a, d, or <CR> to end:

Copyright © 2026 Thoroughbred Software International, Inc.

To create a Thoroughbred Basic user login, type **a**, and press the **Enter** key. The following message will be displayed:

ENTER LOGIN NAME (MAX 8 CHARACTERS) OR <CR> TO END:

A valid user login is 1 through 8 characters long. Type a user login and press the **Enter** key. The following message will be displayed:

ENTER USER'S FULL NAME:

Type the name of the user who is associated with the login you just entered, and press the **Enter** key.

The **install** utility will add the user login to the system password file. Because the user login you added is a Thoroughbred Basic user login, that user will login to Thoroughbred Basic, not to the operating system. After the password file is updated, the **install** utility will redisplay the Install/Update User Logins screen, which will contain the current list of Thoroughbred Basic user logins. You can continue to add logins until all the Thoroughbred Basic users at your site are listed.

The **install** utility does not enable you to specify passwords for user logins. After you leave the **install** utility, you can use UNIX functions to assign passwords to Thoroughbred Basic user logins.

If you have finished specifying Thoroughbred Basic user logins, please refer to the section titled *How to Leave the Install Utility*.

How to Delete User Logins

To delete Thoroughbred Basic user logins from the password file, use the **install** utility to display the Install/Update User Logins screen:

```
2) Install/Update User Logins

        Current BASIC Users:

        root -



        Add or Delete? Enter a, d or <CR> to end:
```

You must enter a valid value in the following field:

Add or Delete? Enter a, d, or <CR> to end:

Copyright © 2026 Thoroughbred Software International, Inc.

To delete a Thoroughbred Basic user login, type **d** and press the **Enter** key. The following message will be displayed:

ENTER LOGIN NAME (MAX 8 CHARACTERS) OR <CR> TO END:

The only valid values are the Thoroughbred Basic user logins displayed on the Install/Update User Logins screen. You can only delete the user logins created by using the procedure in the section titled *How to Create User Logins*.

Type the user login you want to delete and press the **Enter** key. The **install** utility will delete the Thoroughbred Basic user login from the password file. After the password file is updated, the **install** utility will redisplay the Install/Update User Logins screen, which will contain the current list of Thoroughbred Basic user logins.

How to Leave the Install Utility

To stop managing Thoroughbred Basic user logins, make sure the **install** utility is displaying the Install/Update User Logins screen:

```
    2) Install/Update User Logins

            Current BASIC Users:

            root -



            Add or Delete? Enter a, d or <CR> to end:
```

You must enter a valid value in the following field:

Add or Delete? Enter a, d, or <CR> to end:

Copyright © 2026 Thoroughbred Software International, Inc.

Press the **Enter** key. The **install** utility will display the Installation and Updating Procedures screen:

```
Thoroughbred BASIC Installation and Updating Procedures


            1)  Install New System
            2)  Install/Update User Logins
            3)  Install/Update BASIC Directories
            4)  Install/Update BASIC Printers
            5)  Install/Update BASIC Terminals
            6)  Install/Update BASIC Ghost Tasks


            Enter Selection (1 - 6) or <CR> to end:
```

You must enter a valid value in the following field:

Enter Selection (1 - 6) or <CR> to end:

To leave the **install** utility and return to the operating system prompt, press the **Enter** key.

Copyright © 2026 Thoroughbred Software International, Inc.

HOW TO GET AN ACTIVATION KEY

If you have not activated Thoroughbred Basic, you have thirty days to validate your system. After thirty days your installation or upgrade will be restricted. To get an Activation Key after thirty days, you will have to reinstall Thoroughbred Basic from the original media.

If you are not currently using the **install** utility, go to the Thoroughbred Basic home directory type **./b** and press the **Enter** key. The Thoroughbred BASIC Activation Procedure screen will be displayed:

```
        Thoroughbred BASIC Activation Procedure


    This system contains a temporary installation of
    Thoroughbred BASIC.
    You have less than 'nn' days before the number
    of active users is restricted to 3.


                SSN = XXXXXXXXX-XX
                Installation Code = XXXXXXXXX

    Do you want to enter the Activation Key? (Y/N):
```

Until you enter a valid Activation key, this screen will be displayed every time you start Thoroughbred Basic. Before you contact Thoroughbred Software International make sure you have the following information handy:

- Your Dealer Code.
- The software serial number, which you can find on the tape or diskette label or on the displayed Thoroughbred BASIC Activation Procedure screen.
- The Installation Code, which is also displayed on the Thoroughbred BASIC Activation Procedure screen.

To get an Activation Key you can:

- Go to http://www.tbred.com and select Activation to immediately get an activation key sent to you.
- Call Thoroughbred Software International at (800) 524-0430 or (732) 560-1377 and ask for the Activation Desk.

Copyright © 2026 Thoroughbred Software International, Inc.

After Thoroughbred Software International provides the Activation Key, you must enter a valid value in the following field:

Do you want to enter the Activation Key? (Y/N):

Type Y and press the **Enter** key. The following message will be displayed:

Enter Activation Key:

Type the Activation Key you received from Thoroughbred Software International and press the **Enter** key. The following message will be displayed:

Performing final installation of BASIC . . .

After some time elapses the following message will be displayed:

INSTALLATION COMPLETE

Thoroughbred Basic will display the *JPSD - INITIALIZE DISC ENVIRONMENT screen:

```
*JPSD - INITIALIZE DISC ENVIRONMENT                    date

 # ID VOLUME                          S
 0 D0 UTILS                           *
 1 D1 IDL4                            *
 2 D2 WORK                            *



Enter Disk ID code(s) to change:


     F6 - Help
```

To display the Thoroughbred Basic Utilities Menu screen, press the **Enter** key.

```
mm/dd/yy - T0          THOROUGHBRED BASIC UTILITIES              hh:mm:ss
                              system information

 1)*APSD - PRINT DISC DIRECTORY        13) *MPSD - DISPLAY TASK ALLOCATION
 2)*BPSD - BUILD FILESET LIST          14) *NPSD - TERMINAL CONFIGURATOR
 3)*CPSD - COMPARE PROGRAMS            15) *OPSD - DEFINE FILES
 4)*DPSD - RENAME PROGRAMS/FILES       16) *PPSD - RENUMBER PROGRAMS
 5)*EPSD - ERASE PROGRAMS/FILES        17) *QPSD - STRING SEARCH AND REPLACE
 6)*FPSD - DISPLAY FILE PARAMETERS     18) *RPSD - OBJECT FILE MAINTENANCE
 7)*GPSD - GHOST TASK COMMUNICATIONS   19) *SPSD - TRANSFER PROGRAMS/FILES
 8)*HPSD - LIST PROGRAMS ON TERMINAL   20) *TPSD - FILE TRANSFER AND EXPAND
 9)*IPSD - HEX FILE DUMP               21) *XPSD - CHANNEL CROSS REFERENCE
10)*JPSD - INITIALIZE DISC ENVIRONMENT 22) BASIC - GOTO BASIC CONSOLE MODE
11)*KPSD - LIST PROGRAMS               23) OS    - EXIT TO OPERATING SYSTEM
12)*LPSD - LIST DISC DIRECTORY


ENTER SELECTION OR CR TO END:
```


Copyright © 2026 Thoroughbred Software International, Inc.

You must enter a valid value in the following field:

ENTER SELECTION OR CR TO END:

Type the number for the **EXIT TO OPERATING SYSTEM** option and press the **Enter** key. If you used the **./b** command to start Thoroughbred Basic you will be returned to the operating system prompt. If you are using the **install** utility, it will display the Installation and Updating Procedures screen:

```
    Thoroughbred BASIC Installation and Updating Procedures


                1)  Install New System
                2)  Install/Update User Logins
                3)  Install/Update BASIC Directories
                4)  Install/Update BASIC Printers
                5)  Install/Update BASIC Terminals
                6)  Install/Update BASIC Ghost Tasks


                Enter Selection (1 - 6) or <CR> to end:
```

You must enter a valid value in the following field:

Enter Selection (1 - 6) or <CR> to end:

To leave the **install** utility and return to the operating system prompt, press the **Enter** key.

Copyright © 2026 Thoroughbred Software International, Inc.

THOROUGHBRED SOFTWARE SERVICES

Thoroughbred Software International, Inc. provides on-line documentation, support, and training.

Installed Documentation

Thoroughbred Software International, Inc. made online documentation available for its products. To use it, you must install the Dictionary-IV Developer Reference module.

You can access this documentation from Thoroughbred Basic or any Dictionary-IV menu:

- From Thoroughbred Basic Console Mode type **RUN"8H"** and press the **Enter** key.
- From the Thoroughbred Basic Utilities Menu type **8H** and press the **Enter** key.
- From any Thoroughbred Dictionary-IV menu type **/8H** and press the **Enter** key.

Online Documentation

To download the latest documentation and to view recent changes to the documentation you can go to http://www.tbred.com and select Documentation in the Developer section of the Home page.

Support

Thoroughbred provides support for its products by telephone or email. For information on Thoroughbred support, please contact your Thoroughbred dealer or sales representative.

Training Classes

Thoroughbred offers a variety of training options to address each customer's individual needs and requirements. For more information on training, please contact your Thoroughbred Representative at 800-524-0430 or 732-560-1377

Copyright © 2026 Thoroughbred Software International, Inc.