Tekelec EAGLE® 5
Integrated Signaling System

FTP-Based Table Retrieve Application (FTRA) Software Installation Instructions

909-0643-001 Revision D

June 2007

TEKELEC

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U.S. Patent Numbers:

5,008,929, 5,953,404, 6,167,129, 6,324,183, 6,327,350, 6,456,845, 6,606,379, 6,639,981, 6,647,113, 6,662,017, 6,735,441, 6,745,041, 6,765,990, 6,795,546, 6,819,932, 6,836,477, 6,839,423, 6,885,872, 6,901,262, 6,914,973, 6,940,866, 6,944,184, 6,954,526, 6,954,794, 6,959,076, 6,965,592, 6,967,956, 6,968,048, 6,970,542

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Hardware and Software Requirements

To run the offline application, a workstation on the Windows or Unix platform is required. The Windows workstation requires that the following hardware and software is installed:

- Operating system – Windows® 2000/XP or later[1]

- Processor speed – Pentium III, 750 MHz or faster

- RAM – Minimum 128 MB

- Disk space – Minimum 500 MB plus 500 MB for each configured STP

- A CD-ROM drive

- 10/100BaseT Ethernet connection to the LAN

- Static IP addressing

- Java 2 Runtime Environment (JRE) 1.4.2 or later version of 1.4x.[2]

The Unix workstation requires that the following hardware and software is installed:

- Operating system – Solaris 7 or later

- Processor speed – 500 MHz or faster

- RAM – Minimum 512 MB

- Disk Space – Minimum 500 MB + 500 MB per STP

- CD-ROM drive

- 10/100BaseT Ethernet connection to the LAN

- Static IP addressing

- Java 2 Runtime Environment (JRE) 1.4.2 or later

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[1] Windows is a registered trademark of Microsoft Corporation in the United States of America and/or other countries.

[2] Java and all Java-based marks are trademarks or registered trademarks of Sun Microsystems, Inc. in the United States of America and other countries. Tekelec is independent of Sun Microsystems, Inc.

If any problems are encountered while installing the FTRA software, contact the Customer Care Center at one of the following locations:

- Tekelec, Europe and UK

  Phone: +44 1784 467 804

  Fax: +44 1784 477 120

- Tekelec, USA

  Phone (within the continental US) 888-FOR TKLC
    (outside the continental US) +1 919-460-2150

  Or you can request assistance by way of electronic mail at
    `support@tekelec.com`.

Software Installation

The FTRA software can be installed locally or remotely through a LAN. The software installation can be accomplished in 5 to 10 minutes if the Java 2 Runtime Environment has been previously installed.

The JRE version 1.4.2_03 is provided in the FTRA 4.0 installation package. Installation procedures are also described in terms of the JRE version 1.4.2_03. However, you can install JRE version 1.4.2 or 1.5 if you are downloading JRE from Sun Microsystems's web site.

If the Java 2 Runtime Environment software has not been installed, you can install the Java 2 Runtime Environment software from the FTRA CD or download the Java 2 Runtime Environment software from Sun Microsystem's web site (for installation on the Unix platform). Should you decide to download the Java 2 Runtime Environment software from Sun Microsystem's web site, the software installation can take from 30 to 90 minutes, depending on the download speed of your Internet connection. The FTRA is not providing service during this time. If the FTRA is being upgraded, it will not be necessary to re-create directories or environment variables that already exist.

If the FTRA software is being installed for the first time, perform one of these procedures:

- "FTRA Software Installation on Windows" on page 3

- "FTRA Software Installation on Unix" on page 11

If the FTRA software is being upgraded to FTRA 4.0, perform one of these procedures:
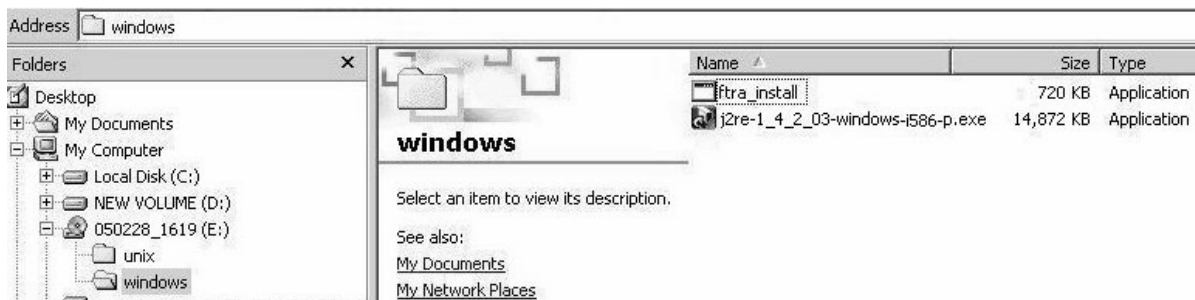
- "Upgrade to FTRA 4.0 on Windows" on page 14

- "Upgrade to FTRA 4.0 on Unix" on page 15

Procedure – FTRA Software Installation on Windows

1. Place the FTRA CD in the CD-ROM drive.

    a. To see the contents of the FTRA CD, double-click on the **My Computer** icon on the desktop of your computer. This will open Windows Explorer.

    b. Click on the **Folders** tab at the top of the **Windows Explorer** menu. The drives in your computer are displayed.

    c. Select the CD drive by clicking on the CD drive in the **Folders** pane of Windows Explorer. The contents of the CD are displayed as shown in Figure 1.

    Figure 1.   Explore the FTRA CD Using Windows Explorer

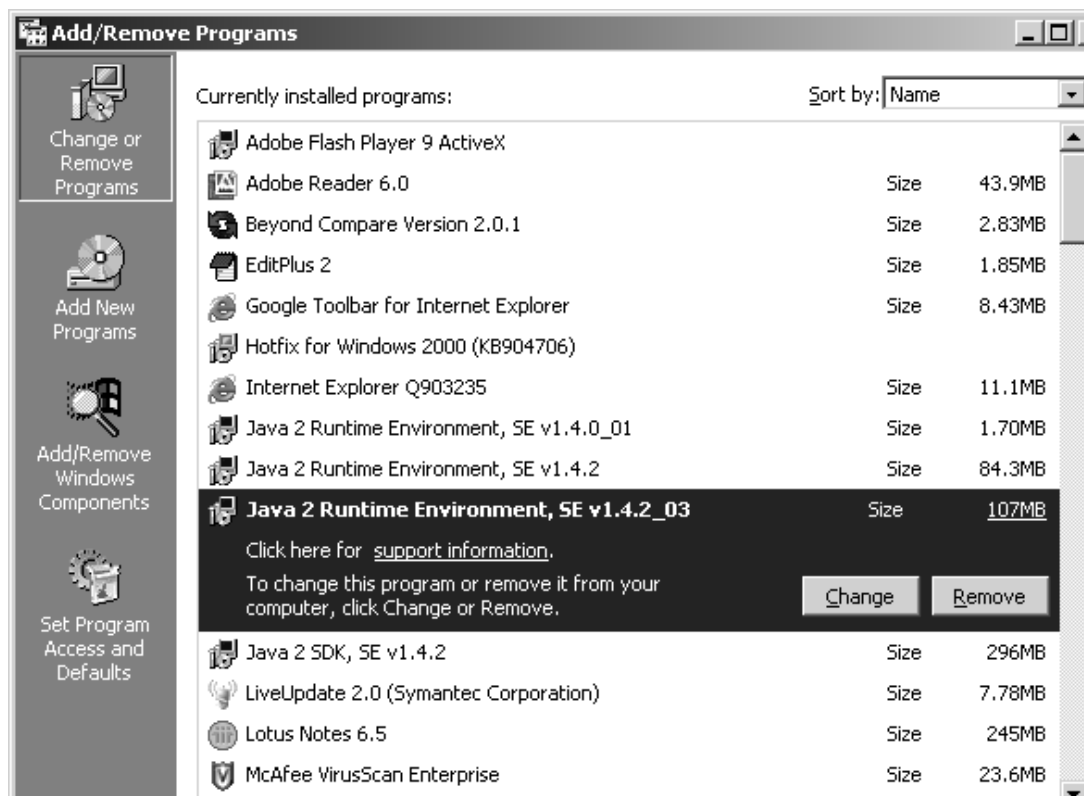2. Install the Java 2 Runtime Environment Standard Edition Version 1.4.2_03 from the CD.

    You may not need to install the Java 2 Runtime Environment Standard Edition Version 1.4.2_03 software, if it is already installed on your computer. Perform the following steps to verify this:

    a. Go to **Start Menu > Control Panel > Add or Remove Programs**. All the programs installed on your computer are displayed.

    NOTE: If you use Windows XP in the classical mode. Perform the following steps: Go to Start Menu > Settings > Control Panel > Add or Remove Programs.
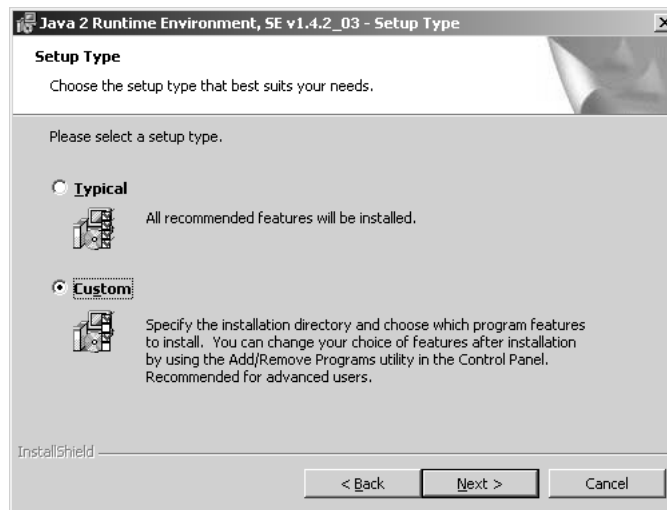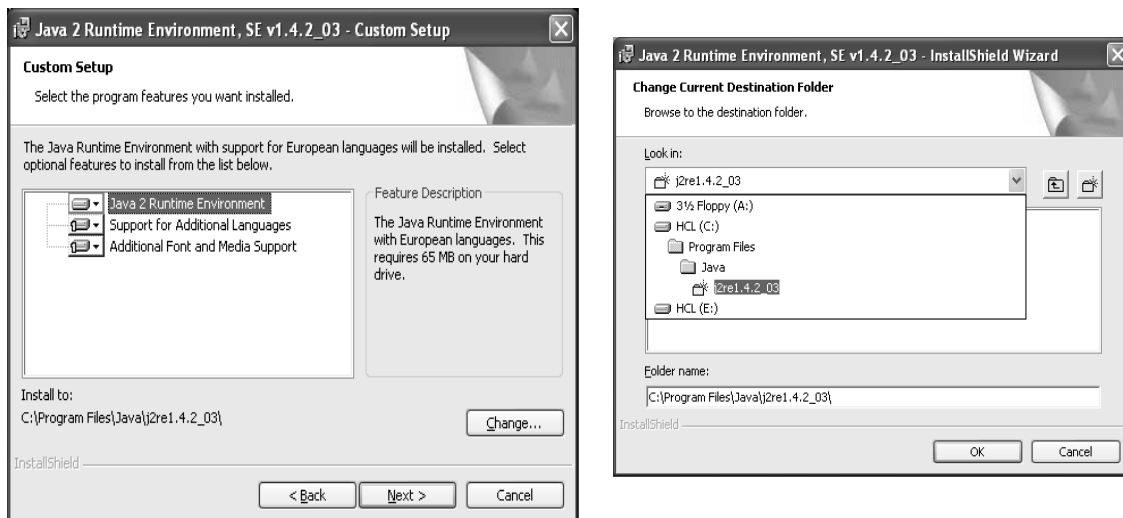
    b. If the Java 2 Runtime Environment Standard Edition Version 1.4.2_03 software is installed on your computer as shown in Figure 2, go to step 4. If the Java 2 Runtime Environment Standard Edition Version 1.4.2_03 software is not installed on your computer, go to step 3

Figure 2.   Add or Remove Programs Window

3. Install the Java 2 Runtime Environment Standard Edition Version 1.4.2_03
    software on your computer by performing these steps:

    a. Select the CD drive on your computer.

    b. Select the **windows** folder on the CD drive. The executable files for
        installing the FTRA software and the Java 2 Runtime Environment
        Standard Edition Version 1.4.2_03 software are displayed.

    c. Double-click on the **j2re-1.4.2_03 windows-i586-l** icon. The InstallShield
        Wizard opens. Follow the InstallShield Wizard instructions. When
        prompted, click the **Yes** or **Next** buttons, as appropriate, to proceed with
        the installation procedure.

    d. The InstallShield Wizard asks you to choose the destination location for
        the Java 2 Runtime Environment Standard Edition Version 1.4.2_03
        software only if you selected the Custom installation. You may change
        the destination location by clicking the Change button as shown in
        Figure 4, or you may use the default destination location given in the
        wizard. Record the path information, either the default path or the new
        path you have chosen. The path information will be required in step 7.
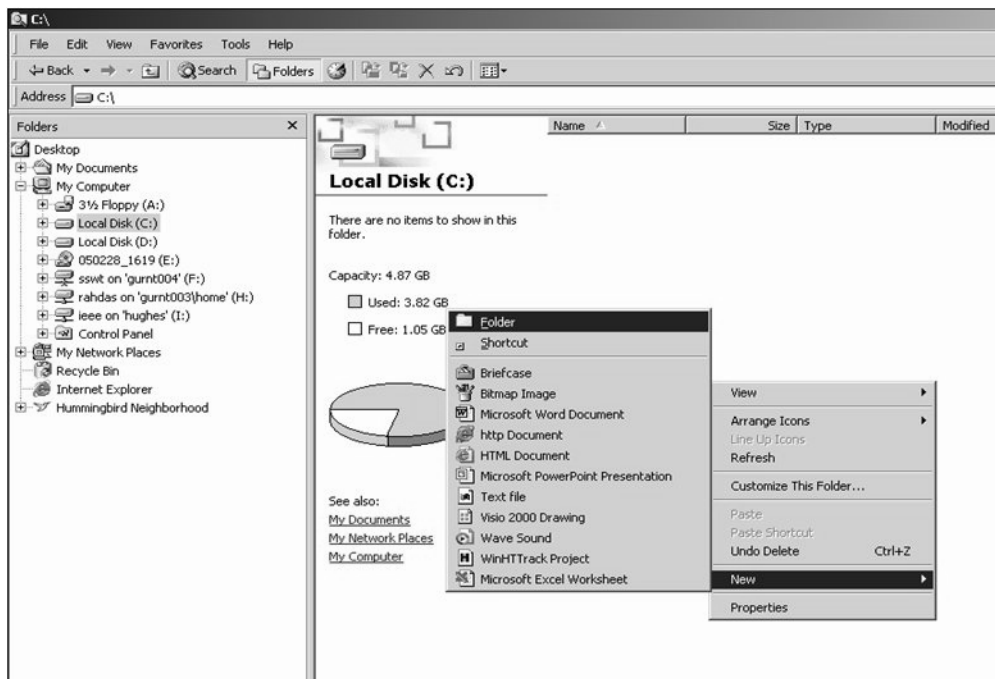
Figure 3.   Select a Custom Installation

Figure 4.   Java Runtime-Environment Installshield Wizard

4. Create a folder that the FTRA software will be installed into (the *<base_directory>*), for example, `C:\ftra`.

The new folder can be created on any drive on your computer. Perform the following steps to create the folder. For this example, a new folder named **ftra** is created on the **C:** drive.
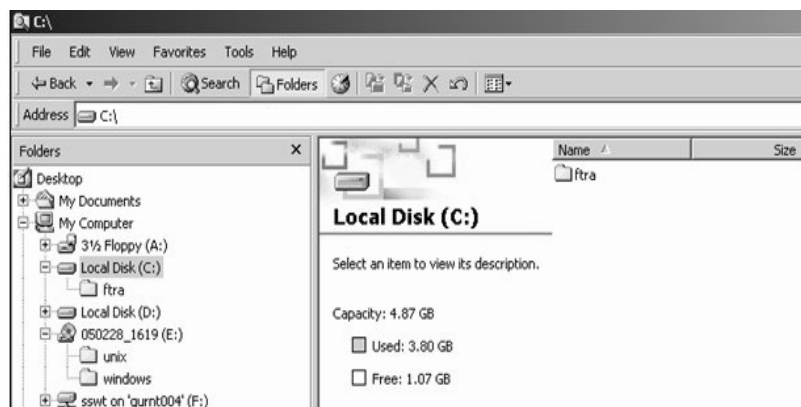
a. Select the **C:** drive from Windows Explorer.

b. Right-click and select **New > Folder** as shown in Figure 5. A folder named **New Folder** is created.

Figure 5.   Create a New Folder for FTRA Installation

c.   Rename this folder to **ftra** as shown in Figure 6.
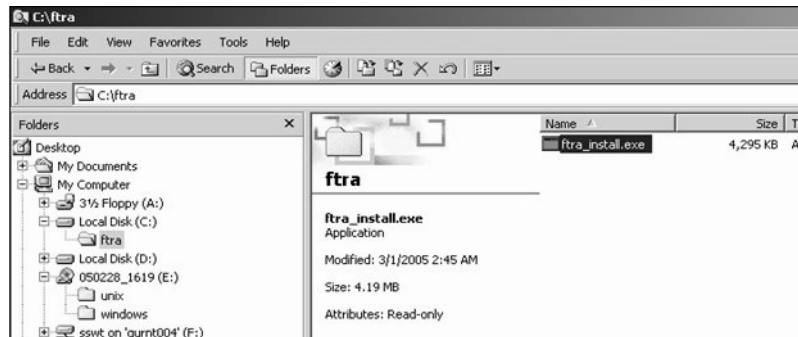
Figure 6.   Rename New Folder to ftra

NOTE: Make sure that there is no previous installation of the FTRA software inside the ftra folder on your computer. If a previous installation of the FTRA software is inside the ftra folder, you may choose a different name for your <base_directory> or you may choose to remove or rename your previous FTRA installation.
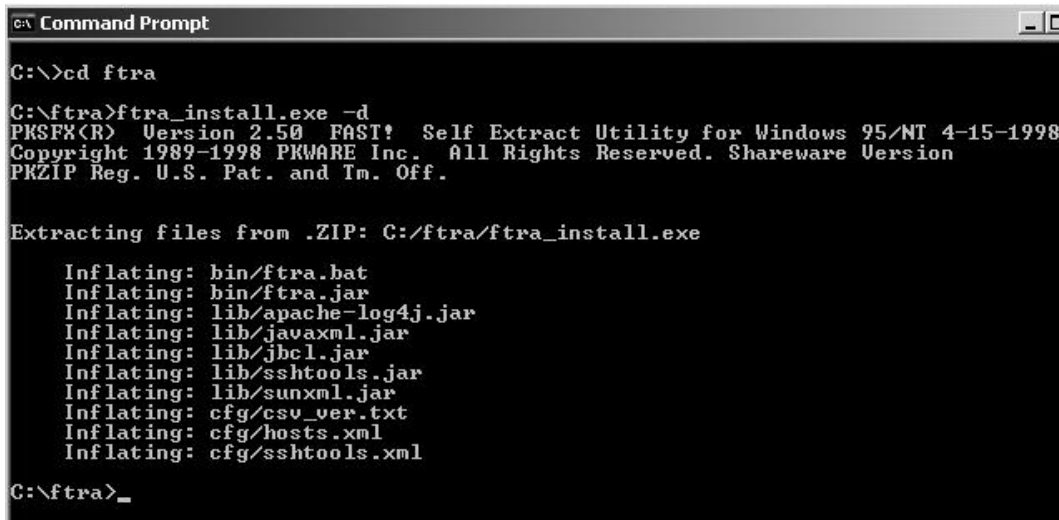
5. Copy the **ftra_install.exe** file from the FTRA CD to the *<base_directory>* folder by performing these steps:

    a. In Windows Explorer, select the CD drive on your computer and select the **windows** folder.

    b. Copy the **ftra_install.exe** file from the **windows** folder to the *<base_directory>* folder as shown in Figure 7.

    Figure 7.   Copy the **ftra_install.exe** File

6. Extract the FTRA program files using only the command prompt. Do not use a Windows Explorer window to extract the FTRA program files.

    a. Open the Windows command prompt.

    b. Change directory to the FTRA *<base_directory>*.

    c. Enter the command **ftra_install -d** as shown in Figure 8. The FTRA program files are extracted to the FTRA *<base_directory>*.

Figure 8.   Extract Program Files

```
Command Prompt                                                        _ □

C:\>cd ftra

C:\ftra>ftra_install.exe -d
PKSFX(R)  Version 2.50  FAST!  Self Extract Utility for Windows 95/NT 4-15-1998
Copyright 1989-1998 PKWARE Inc.  All Rights Reserved. Shareware Version
PKZIP Reg. U.S. Pat. and Tm. Off.

Extracting files from .ZIP: C:/ftra/ftra_install.exe

    Inflating: bin/ftra.bat
    Inflating: bin/ftra.jar
    Inflating: lib/apache-log4j.jar
    Inflating: lib/javaxml.jar
    Inflating: lib/jbcl.jar
    Inflating: lib/sshtools.jar
    Inflating: lib/sunxml.jar
    Inflating: cfg/csv_ver.txt
    Inflating: cfg/hosts.xml
    Inflating: cfg/sshtools.xml

C:\ftra>_
```

7. Set the required system/user environment variables.

    The method for defining environment variables differs between Windows systems.
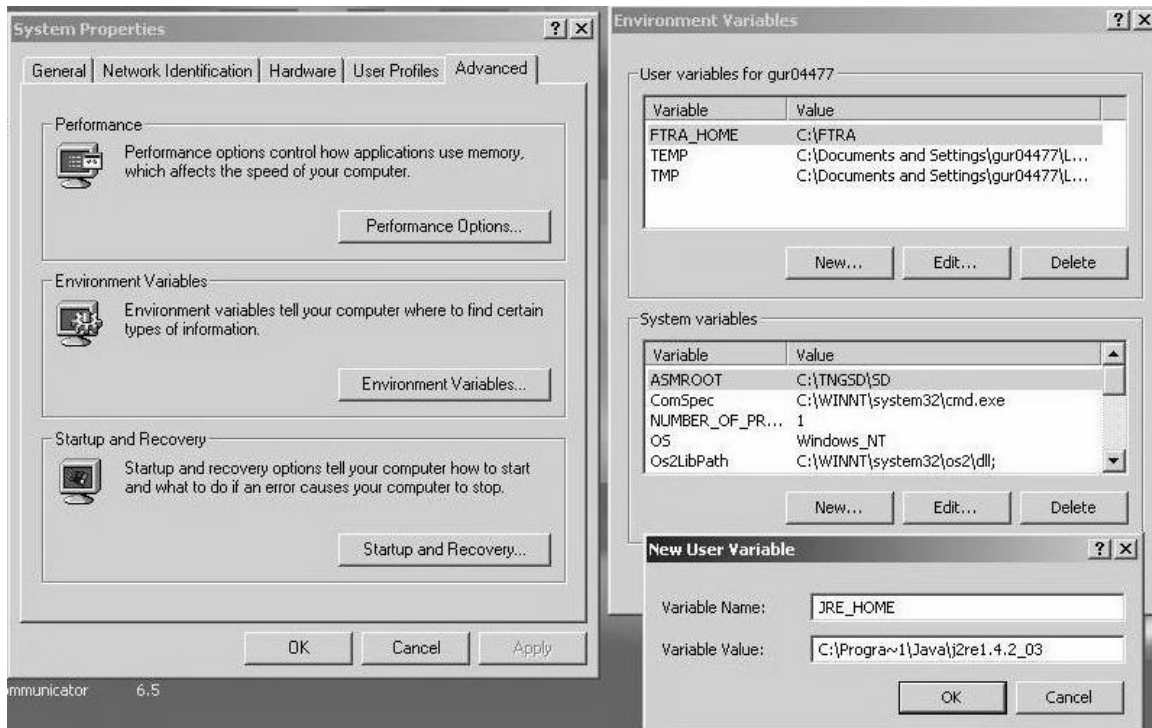
    Windows 2000 or Windows XP Operating System

    a. Right-click the **My Computer** icon on the desktop and select **Properties**.

    b. In the **Advanced** tab, click **Environment Variables** and then click **New** as shown in Figure 9.

    c. Under User variables, enter the following variable names and their values:

    FTRA_HOME = C:**<*base_directory created for FTRA*> (typically, **C:\ftra)

    JRE_HOME = C:\Progra~1\Java\j2re1.4.2_03

    (typically, the folder where Java is installed, and the Java path information recorded in step 2)

Figure 9.   Set the FTRA Environment Variables

Windows NT® **Operating System**[1]

NOTE: Installing the FTRA software on a computer using the Windows NT operating system is supported only on computers using Windows NT 4.0.

a. Right-click the **My Computer** icon on the desktop and select **Properties**.

b. In the **Environment** tab, select any user environment variable, enter the new variable names and values, and click **Set**.

c. Under User variables, enter the following variable names and their values:

FTRA_HOME = C:**<*base_directory created for FTRA*> (typically, **C:\ftra)
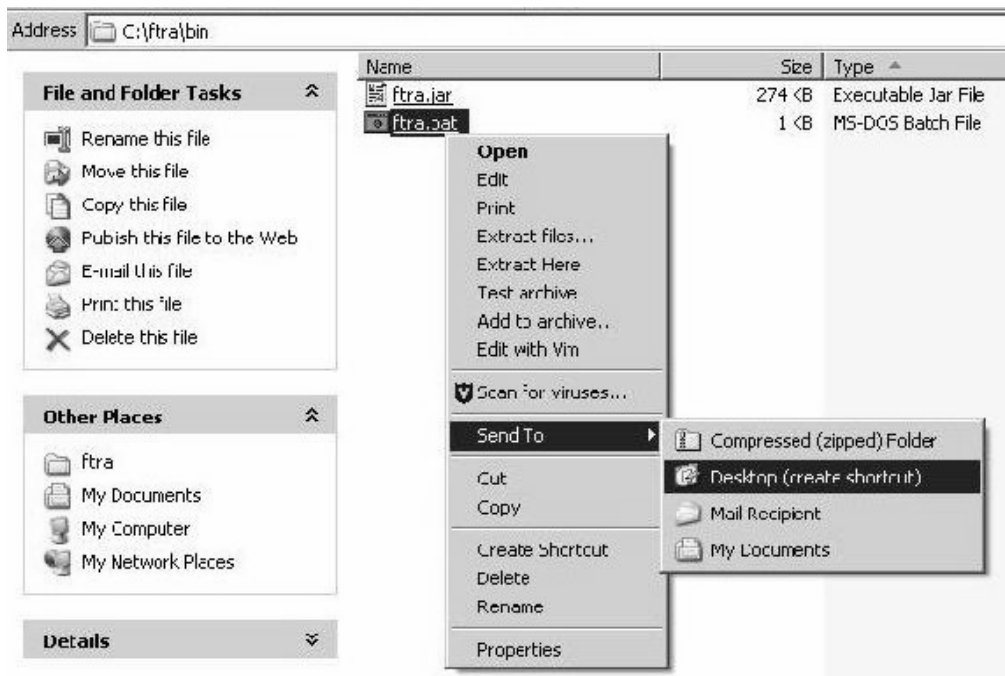
JRE_HOME = C:\Progra~1\Java\j2re1.4.2_03

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[1] Windows NT is a registered trademark of Microsoft Corporation in the United States of America and/or other countries.

(typically, the folder where Java is installed, and the Java path information recorded in step 2.)

NOTE: If the directory name has spaces, or is over eight characters in length, the DOS short name may be required to define the environment variable. For example, using the JRE_HOME environment variable above, the variable would be defined as `C:\Progra~1\Java\j2re1.4.0_03` with the maximum eight characters for the directory name

8. Create an FTRA shortcut on your desktop.

    a. Using Windows Explorer, open the *<base_directory>***bin** folder.

    b. Right-click on the **ftra.bat** file and then select **Create Shortcut** as shown in Figure 10. A shortcut to the **ftra.bat** file is created in the *<base_directory>***bin** folder.

    c. Cut and paste this shortcut to the desktop.

    Figure 10.   Creating FTRA Shortcut - FTRA 4.0

NOTE: On multi-user systems, the shortcut should be placed in the Default User or All Users desktop folder in order to make it available to all users.

Procedure – FTRA Software Installation on Unix

1. Place the FTRA CD in the CD-ROM drive.

2. Install the Java 2 Runtime Environment SE V1.4.2_03 software either from the FTRA CD or download the Java 2 Runtime Environment SE V1.4.2_03 software from Sun Microsystem's web site.

   a. To install the Java 2 Runtime Environment SE V1.4.2_03 software from the FTRA CD, Open **FileManager** and go to the CD-ROM drive. From **FileManager**, double-click on the `j2re-1.4.2_03-solaris-sparc.sh` file and follow the installation instructions in the "Java 2 Runtime Environment Installation" procedure on page 13.

   b. To install the Java 2 Runtime Environment (JRE) 1.4.2_03 from Sun Microsystem's web site, enter the following address into your web browser and follow the product installation instructions. `http://java.sun.com/j2se/1.4/jre/install-solaris.html`.

3. Create an *<install_directory>* to install the FTRA software into. The preferred location to install the FTRA software into is `<HOME_DIRECTORY>/ftra`, but you may place it wherever you would prefer. Open **FileManager** and go to the preferred location. From **FileManager**, select **File > New Folder** and rename it `ftra`. Copy the file `ftra_install.tar` from the FTRA CD to the new *<install_directory>* (for example, `<HOME_DIRECTORY>/ftra`).

   NOTE: The HOME_DIRECTORY can be found using the command `echo $HOME_DIRECTORY`.

4. Extract the FTRA file(s) from the new *<install_directory>* (for example, `<HOME_DIRECTORY>/ftra`). From **FileManager**, right-click on the `ftra_install.tar` file and select **Archive Unpack**. This will extract the program files into a new `/bin` subdirectory.

   NOTE: The Archive Unpack function is only available when using the CDE (Common Desktop Environment) X-window File Manager. If you are not using the CDE, the Unix `tar -xvwf ftra_install.tar` command to extract the contents of ftra_install.tar should be used. Please refer to the `man` pages for more information about the `tar` command.

5. To display the FTRA and JRE home paths, use the following commands:

   echo $FTRA_HOME

   echo $JRE_HOME

   An example of the possible output is:

   For echo $FTRA_HOME:

   <ftra_install_directory> (for example, <HOME_Directory>/ftra)

   For echo $JRE_HOME:

   <jre_install_directory> (for example, /usr/java)

   NOTE: For NetBoss, the example of the output would be:

   harristest[netboss]/opt/home/netboss% echo $FTRA_HOME

   /usr/ftra/

   harristest[netboss]/opt/home/netboss% echo $JRE_HOME

   /usr/java/

6. Set the required environment variables by adding the following lines to the user's **.cshrc** file; this file is located in the user's home directory:

   setenv FTRA_HOME '<*ftra_install_directory*>' (for example,
   <HOME_DIRECTORY>/ftra).

   setenv JRE_HOME '<*jre_install_directory*>'

   For Netboss, set the required environment variables in the user's.cshrc file by editing the file using an editor like **vi**:

   setenv FTRA_HOME $(anmdr)/local/stp/ftra

   setenv JRE_HOME /usr/java

   NOTE: Use the ls -al command to view the hidden file .cshrc and the man vi command to display help for the vi editor.

7. Change to the bin directory to run FTRA.

   Change to FTRA BIN <*bin directory*> (for example, **<cd /ftra/bin>**)

   Run FTRA <*./ftra*>.

   NOTE: Verify that ftra file is executable. Otherwise, use chmod 555 ftra command to change the permissions on this file.

Procedure – Java 2 Runtime Environment Installation

1. Log on as **root**.

2. Check the version of the Java Runtime Environment Installation.

   `shell> java -version`

   NOTE: If the version is 1.4.2_03 then the user can skip the following steps. If the version is earlier than 1.4.2_03 then go to step 3.

3. Go to the Java installation directory.

   `Shell> cd /usr`

4. Copy the Java distribution from the FTRA CD:

   `Shell> cp` *<path to the FTRA CD>*`/j2re1.4.2_03-solsparc.sh`

5. Execute the Java installation program.

   `Shell> ./j2re1.4.2_03-solsparc.sh`

   This will create a directory called `j2re1.4.2_03`.

   NOTE: Make sure the file is executable. If the file is not executable, use `chmod 555 j2re1.4.2_03-solsparc.sh` command to set the read and execute permissions.

6. Make a symbolic link to this directory called `/usr/java` by entering this command:

   `Shell> ln -s j2re1.4.2_03 java`

   If a Java link already exists in the directory (use the `ls -l` command to verify that the link exists), remove the existing link first by entering the command, `rm java`.

7. Confirm that the desired version of the Java Runtime Environment Installation:

   `shell> java -version`

   Example output:

   `java version 1.4.2_03`

   `Java(TM) 2 Runtime Environment, Standard Edition (build 1.4.2_03-b02)`

   `Java HotSpot(TM) Client VM (build 1.4.2_03-b02, mixed mode)`

Procedure – Upgrade to FTRA 4.0 on Windows

1. Place the FTRA CD in the CD-ROM drive.

2. From Windows Explorer, copy the **ftra_install.exe** file from the FTRA CD to the existing folder containing the FTRA software. For details on the folder containing the FTRA software, see Procedure "FTRA Software Installation on Windows", step 4 on page 5.

3. Extract the FTRA program files from the FTRA CD. From the Windows command line, the **MS-DOS** prompt, enter the command `ftra_install -d`. The `ftra_install -d` command creates all the required directories and extracts the program files. During the execution of the `ftra_install -d` command, you will be asked if you wish to overwrite an existing file. Answer "no" if you wish to retain the entries in the hosts.xml file. This file contains previously provisioned host entries. Answer "yes" if you do not wish to retain the entries in the hosts.xml file. Choosing this option will cause the existing hosts.xml file to be overwritten. When the `ftra_install -d` command has finished executing, the FTRA 4.0 software has been installed.

4. Start the FTRA software. See the "FTRA Initialization" section in the *FTP-Based Table Retrieve Application (FTRA) User Guide* (910-4919-001) for more information on starting the FTRA software. The existing FTRA STP Connection Configuration data will automatically be converted during the FTRA system initialization.

Procedure – Upgrade to FTRA 4.0 on Unix

1. Place the FTRA CD in the CD-ROM drive.

2. From **FileManager**, copy the **ftra_install.tar** file from the FTRA CD to the existing directory containing the FTRA software. For details on the directory containing the FTRA software, see Procedure "FTRA Software Installation on Unix", step 3 on page 11.

3. From **FileManager**, right-click on the **ftra_install.tar** file that was copied from the FTRA CD, not the **ftra_install.tar** file on the FTRA CD, and select `Archive Unpack`. The program files will be extracted into the existing directory containing the FTRA software.

   To retain the hosts.xml file, which may contain some provisioned host entries, take a backup of the file before overwriting, using the command:

   ```
   mv hosts.xml hosts_backup.xml
   ```

   If installing from the command prompt, the `tar -xvwf ftra_install.tar` command is used to extract the contents of **ftra_install.tar.** The user may choose to enter 'y' or 'n' at the command prompt to overwrite or not to overwrite files, while the files are being extracted from ftra_install.tar.

   NOTE: The Archive Unpack function is only available when using the CDE (Common Desktop Environment) X-window File Manager. If the CDE is not being used, the Unix `tar` command should be used to extract the program files. Please refer to the `man` pages for the `tar` command for more information about using the `tar` command.

   When the extraction of the FTRA program files has completed, the FTRA 4.0 software has been installed.

   To restore the original **hosts.xml** file, use the command:

   ```
   cp hosts-backup.xml hosts.xml
   ```

4. To display the FTRA and JRE home paths use the following commands:

    ```
    echo $FTRA_HOME
    echo $JRE_HOME
    ```

    An example of the possible output is:

    For echo $FTRA_HOME:

    ```
    <ftra_install_directory> (for example, <HOME_Directory>/ftra)
    ```

    For echo $JRE_HOME:

    ```
    <jre_install_directory> (for example, /usr/java)
    ```

    NOTE: For NetBoss, the example output would be:

    ```
    harristest[netboss]/opt/home/netboss% echo $FTRA_HOME
    /usr/ftra/
    harristest[netboss]/opt/home/netboss% echo $JRE_HOME
    /usr/java/
    ```

5. Start the FTRA software. See the "FTRA Initialization" section in the *FTP-Based Table Retrieve Application (FTRA) User Guide* (910-4919-001) for more information on starting the FTRA software. The existing FTRA STP Connection Configuration data will automatically be converted during the FTRA system initialization.

    NOTE: While upgrading from FTRA 1.x to FTRA 2.x or later, make sure you install the Java 2 Runtime Environment, Standard Edition Version 1.4.2_03 on your computer. (Refer to the "Java 2 Runtime Environment Installation" procedure on page 13).