

# **Tekelec EAGLE® 5 Integrated Signaling System**

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

909-0643-001 Revision G  
December 2009



# **TEKELEC**

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### **U.S. Patent Numbers:**

5,732,213; 5,953,404; 6,115,746; 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; 6,987,781; 6,987,849; 6,990,089; 6,990,347; 6,993,038; 7,002,988; 7,020,707; 7,031,340; 7,035,239; 7,035,387; 7,043,000; 7,043,001; 7,043,002; 7,046,667; 7,050,456; 7,050,562; 7,054,422; 7,068,773; 7,072,678; 7,075,331; 7,079,524; 7,088,728; 7,092,505; 7,108,468; 7,110,780; 7,113,581; 7,113,781; 7,117,411; 7,123,710; 7,127,057; 7,133,420; 7,136,477; 7,139,388; 7,145,875; 7,146,181; 7,155,206; 7,155,243; 7,155,505; 7,155,512; 7,181,194; 7,190,702; 7,190,772; 7,190,959; 7,197,036; 7,206,394; 7,215,748; 7,219,264; 7,222,192; 7,227,927; 7,231,024; 7,242,695; 7,254,391

### **Foreign Patent Numbers:**

EP1062792; EP1308054; EP1247378; EP1303994; EP1252788; EP1161819; EP1177660; EP1169829; EP1135905; EP1364520; EP1192758; EP1240772; EP1173969; CA2352246

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# Introduction

## Overview

The FTP-Based Table Retrieve Application (FTRA) is designed in conjunction with the FTP Retrieve and Replace feature to transfer EAGLE 5 ISS database tables using an FTP session to a remote server for offline processing. The FTRA is a stand-alone application that interfaces with one or more STPs. Database tables can be retrieved from the EAGLE 5 ISS; using the EAGLE 5 ISS' retrieve commands. The output of these retrieve commands is converted to CSV (comma separated value) files. EAGLE 5 ISS commands in the form of a command file can be read into the FTRA where they are validated and sent to the selected STP. Logs are provided for event tracking and error message display.

The FTRA provides the following features through the use of a graphical user interface:

- STP Connection Configuration
- STP Connectivity Test
- FTP Server Configuration
- Retrieving the EAGLE 5 ISS database tables with the results converted to CSV files
- Automated or manual retrieval of database tables from multiple STPs with the command line interface. The results are converted to CSV files.
- Validation of the command files before being sent to the STP
- Command file editing
- Viewing the log files for event tracking and error message display

## Related Publications

For information about additional publications that are related to this document, refer to the *Related Publications* document. The *Related Publications* document is published as a part of the *Release Documentation* and is also published as a separate document on the [Tekelec Customer Support Site](#).

## User Guide Conventions

In order to clearly differentiate between references to objects, actions, literal entries, and user-supplied information, the following conventions are used in this user guide:

Menu selections and buttons are shown in bold, and the steps in a menu path are represented with ">". For example:

**Select Edit > STP Connection Configuration from the menu.**

The **Add** button is not enabled when the **STP Connection Configuration** menu opens.

# Hardware and Software Requirements

To run the offline application, a workstation on a Windows or UNIX platform is required.

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

- Operating system – Windows® 2000/XP<sup>1</sup>  
Note: Windows 98 and Windows NT support is discontinued.<sup>2</sup>
- 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 / version 1.4.x.<sup>3</sup>

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

- Operating system Solaris 10 on SPARC Sun Ultra Platform
- 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 / version of 1.4.x.<sup>3</sup>

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<sup>2</sup> Windows Vista is not supported.

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The Customer Care Center is available 24 hours a day, 7 days a week, 365 days a year, and is linked to TAC Engineers around the globe.

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A critical situation is defined as a problem with an EAGLE 5 ISS that severely affects service, traffic, or maintenance capabilities, and requires immediate corrective action. Critical problems affect service and/or system operation resulting in:

- A total system failure that results in loss of all transaction processing capability
- Significant reduction in system capacity or traffic handling capability
- Loss of the system's ability to perform automatic system reconfiguration
- Inability to restart a processor or the system
- Corruption of system databases that requires service affecting corrective actions
- Loss of access for maintenance or recovery operations
- Loss of the system ability to provide any required critical or major trouble notification

**Any other problem severely affecting service, capacity/traffic, billing, and maintenance capabilities may be defined as critical by prior discussion and agreement with Tekelec Technical Services.**

# Hardware and Software Requirements

To run the offline application, a workstation on a Windows or UNIX platform is required.

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

- Operating system – Windows® 2000/XP<sup>1</sup>  
Note: Windows 98 and Windows NT support is discontinued.<sup>2</sup>
- 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 / version 1.4.x.<sup>3</sup>

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

- Operating system Solaris 10 on SPARC Sun Ultra Platform
- 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 / version of 1.4.x.<sup>3</sup>

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<sup>2</sup> Windows Vista is not supported.

<sup>3</sup> 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.

# Software Installation

## Overview

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 4.2 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.x if you are downloading JRE from the Sun Microsystems 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 the Sun Microsystems web site (for installation on the UNIX platform). If you decide to download the Java 2 Runtime Environment software from the Sun Microsystems 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:

- Procedure - FTRA Software Installation on Windows
- Procedure – FTRA Software Installation on UNIX

If the FTRA software is being upgraded to FTRA 4.2, perform one of these procedures:

- Procedure – Upgrade to FTRA 4.2 on Windows
- Procedure – Upgrade to FTRA 4.2 on UNIX

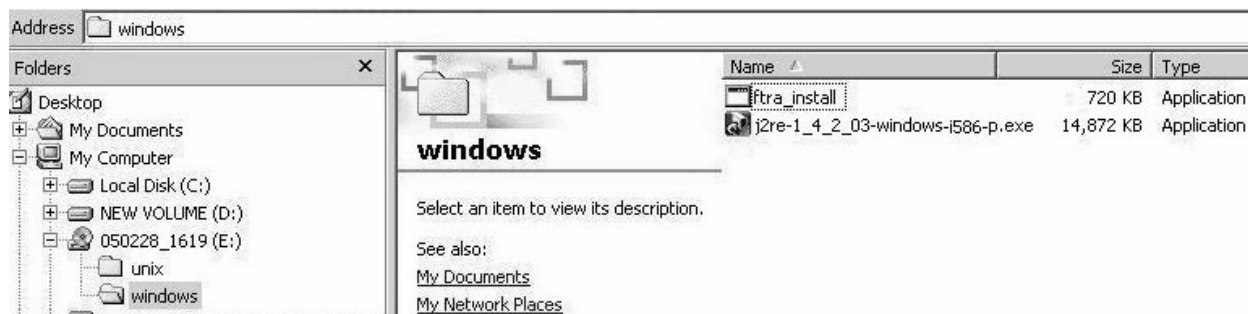
### 1.1.1 Procedure - FTRA Software Installation on Windows

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. Exploring the FTRA CD Using Windows Explorer**



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

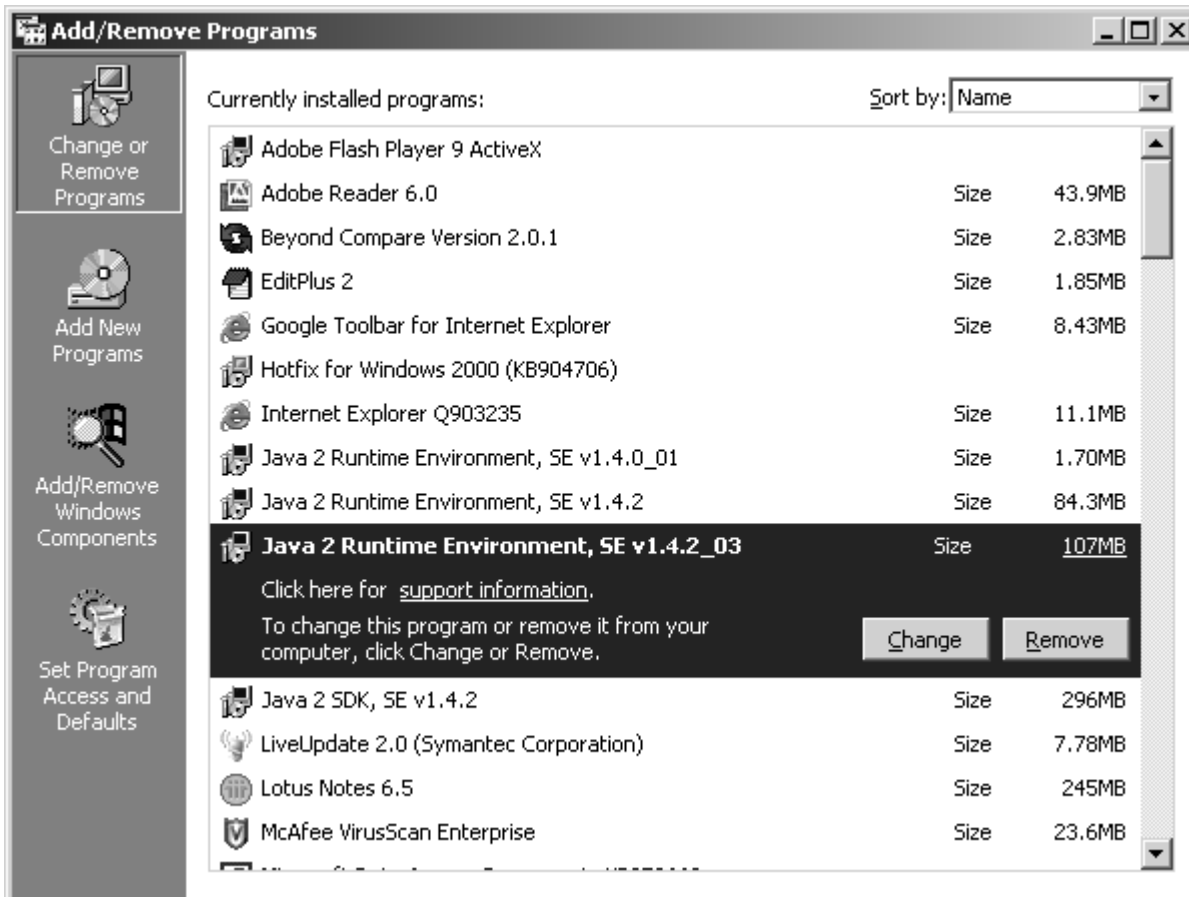
You may not need to install the Java 2 Runtime Environment Standard Edition Version 1.4.2\_03 software, if it is already installed on your computer. Perform the following steps to verify this:

- 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.**

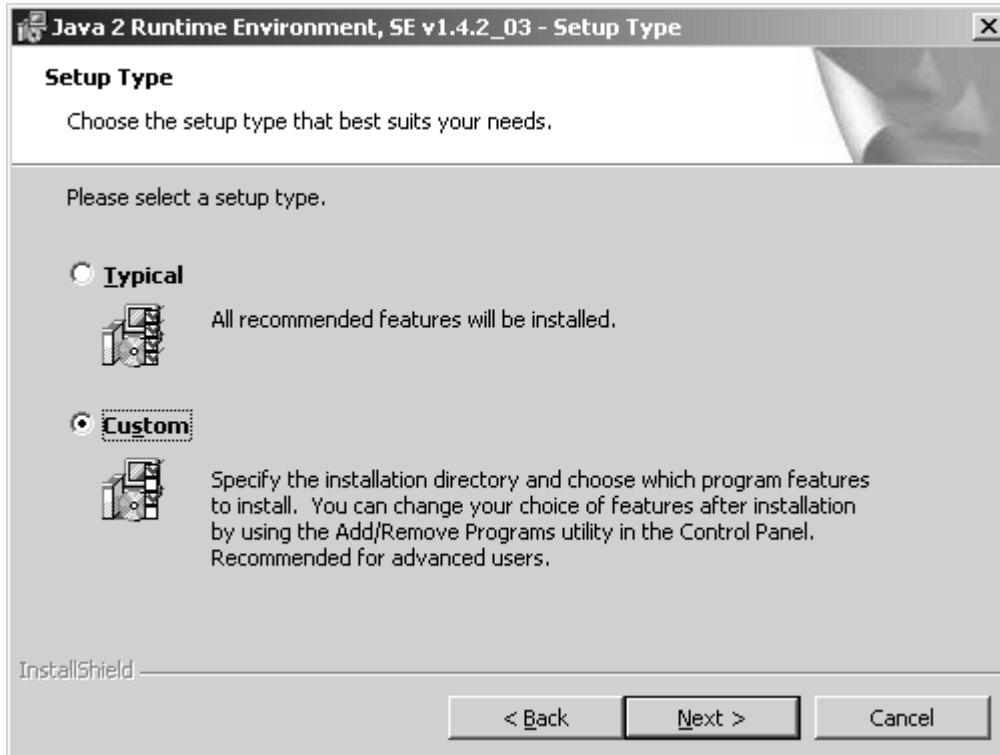
- b) If the Java 2 Runtime Environment Standard Edition Version 1.4.2\_03 software is installed on your computer as shown in Figure 2, go to step 4). If the Java 2 Runtime Environment Standard Edition Version 1.4.2\_03 software is not installed on your computer, go to step 3).

**Figure 2. Add or Remove Programs Window**

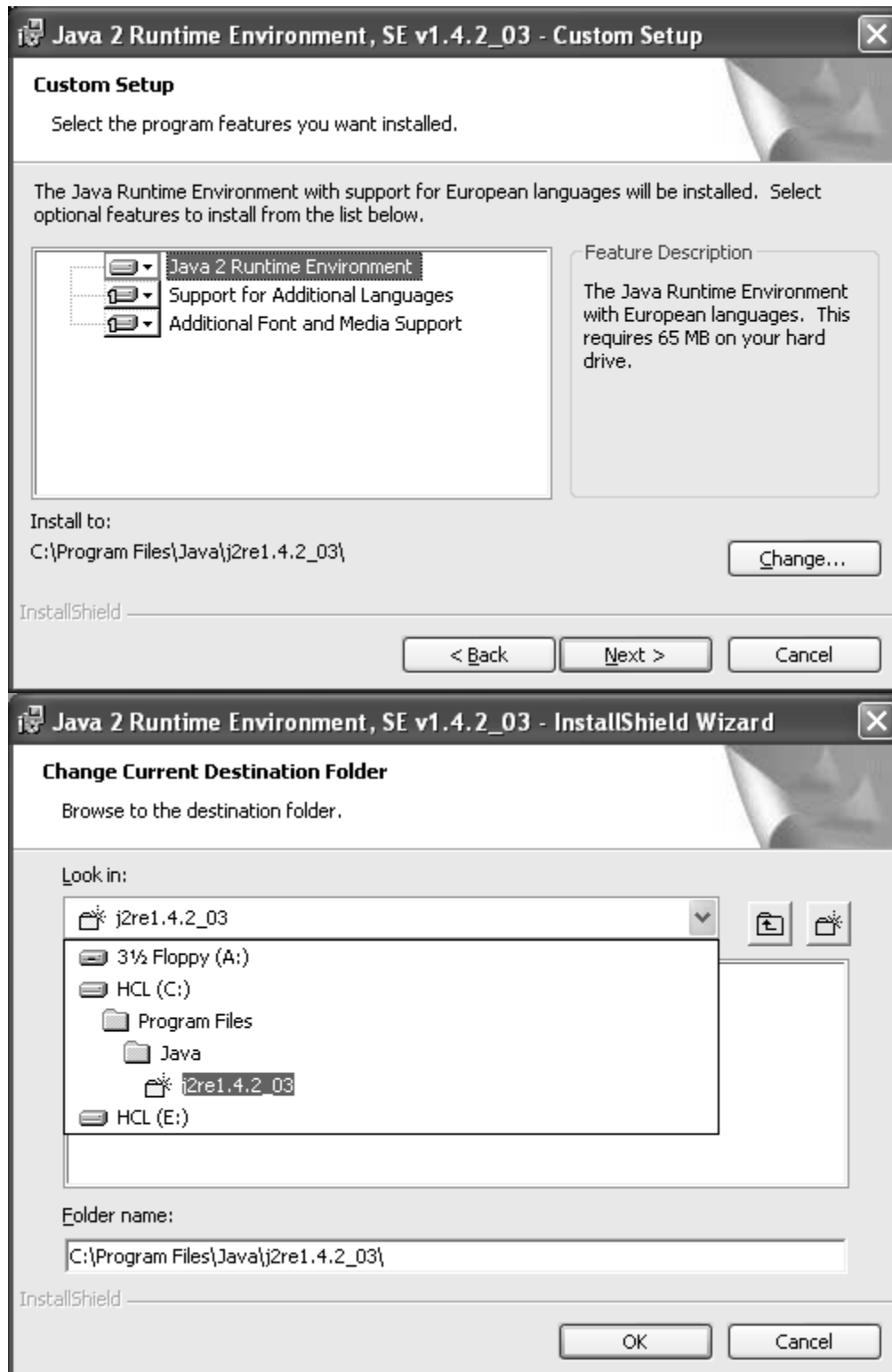


- 3) Install the Java 2 Runtime Environment Standard Edition Version 1.4.2\_03 software on your computer by performing these steps:
  - a) Select the CD drive on your computer.
  - b) Select the **windows** folder on the CD drive. The executable files for installing the FTRA software and the Java 2 Runtime 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**

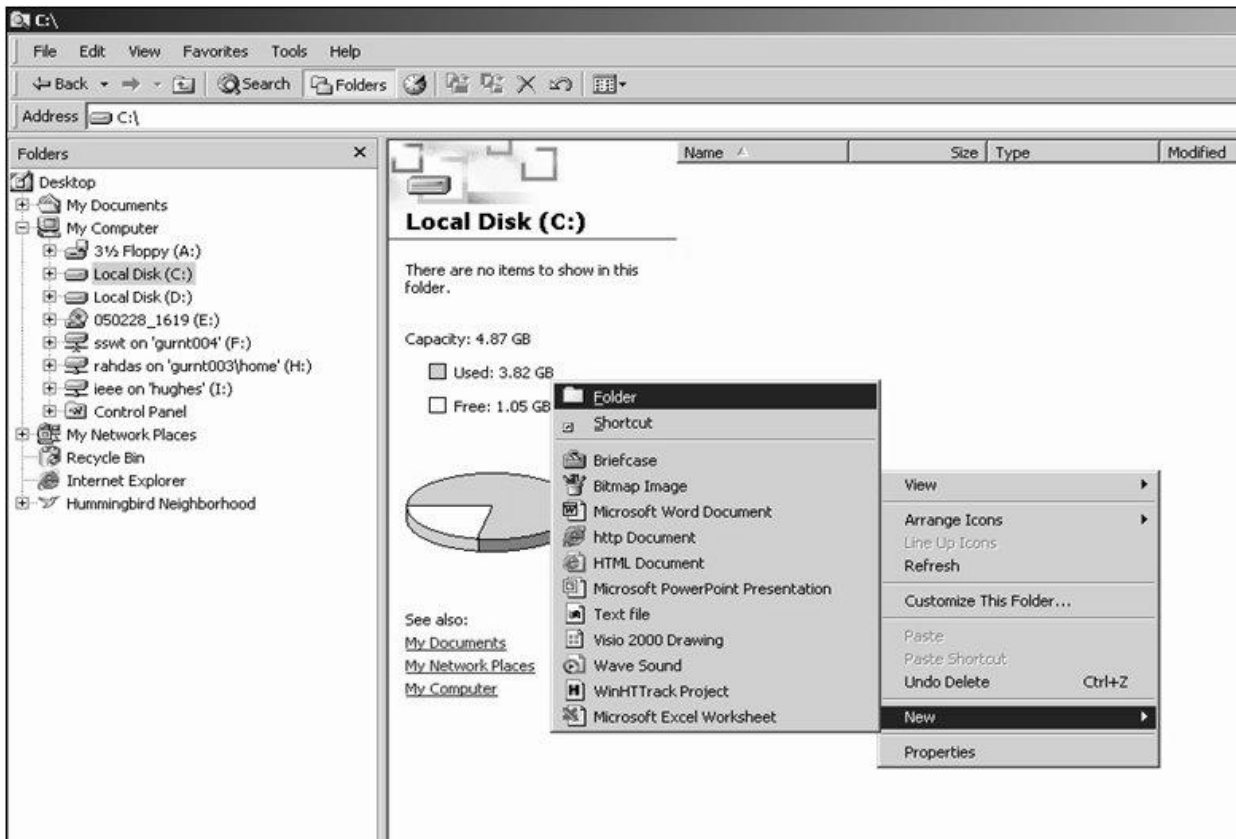


4) Create a folder that the FTRA software will be installed into (the <base\_directory>), for example, C:\ftra.

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.

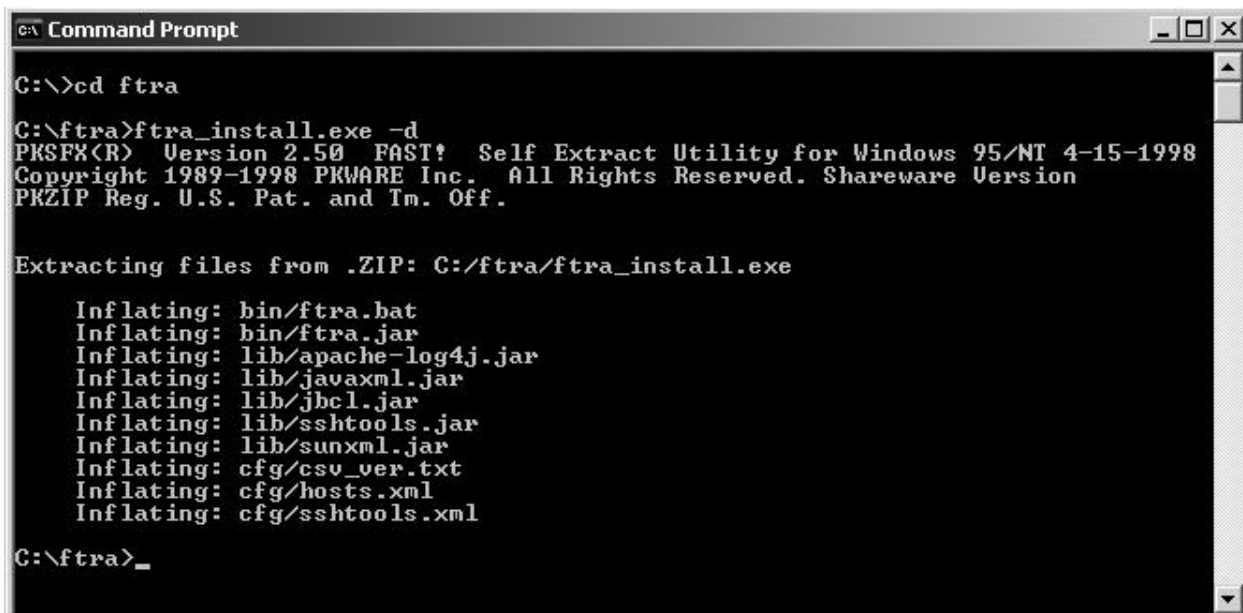


**Figure 7. Copy the ftra\_install.exe File**



- 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**



- 7) Set the required system/user environment variables.

The method for defining environment variables differs between Windows systems.

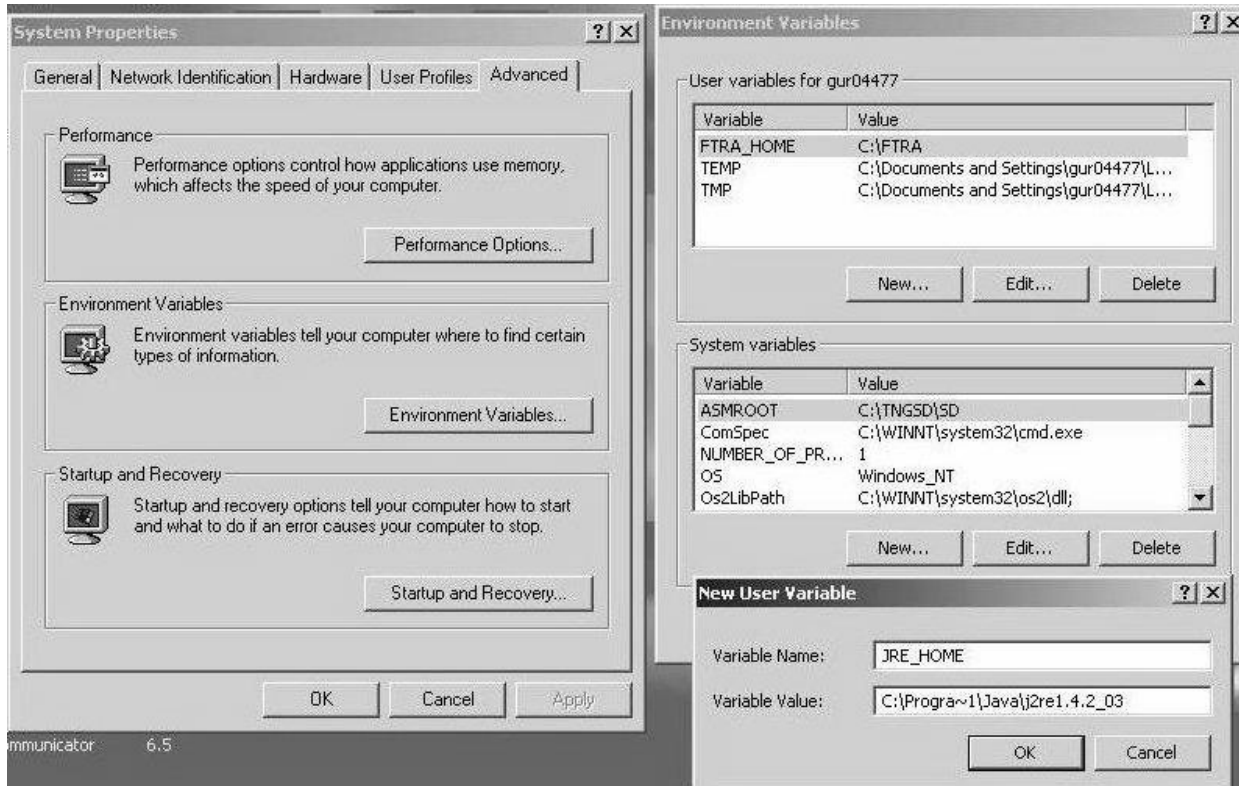
  - a) **Windows 2000 or Windows XP Operating System**
    - i) Right-click the **My Computer** icon on the desktop and select **Properties**.
    - ii) In the **Advanced** tab, click **Environment Variables** and then click **New** as shown in Figure 9.
    - iii) Under User variables, enter the following 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**



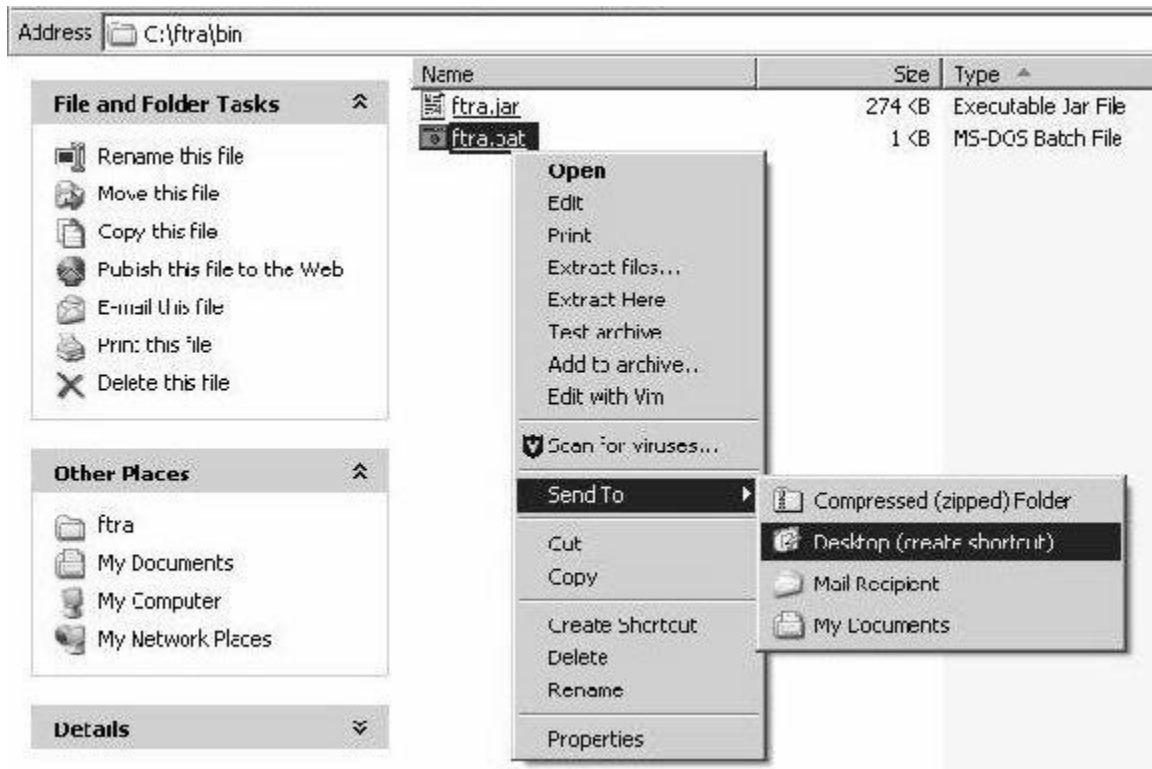
8) Typically, the folder where Java is installed, and the Java path information recorded in step 2.

**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

9) Create an FTRA shortcut on your desktop.

- Using Windows Explorer, open the <base\_directory>\bin folder.
- 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.
- Cut and paste this shortcut to the desktop.

**Figure 10. Creating FTRA Shortcut - FTRA 4.2**



**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.

### 1.1.2 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 the Sun Microsystems 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 “Procedure – Java 2 Runtime Environment Installation”.
  - b) To install the Java 2 Runtime Environment (JRE) 1.4.2\_03 from the Sun Microsystems 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 DE (Common Desktop Environment) X-window File Manager. If you are not using the CDE, the UNIX `tar -xvzf 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 FTTRA and JRE home paths, use the following commands:

```
echo $FTTRA_HOME
```

```
echo $JRE_HOME
```

An example of the possible output is:

For echo \$FTTRA\_HOME:

```
<fttra_install_directory> (for example, <HOME_Directory>/fttra)
```

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 $FTTRA_HOME
```

```
/usr/fttra/
```

```
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 FTTRA_HOME '<fttra_install_directory>' (for example,  
<HOME_DIRECTORY>/fttra).
```

```
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 FTTRA_HOME $(anmdr)/local/stp/fttra
```

```
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 FTTRA.

Change to FTTRA BIN *<bin directory>* (for example, *<cd /fttra/bin>*)

Run FTTRA *<./fttra>*.

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

### 1.1.3 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 FTTRA CD:

```
Shell> cp <path to the FTTRA 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)
```

#### 1.1.4 Procedure – Upgrade to FTRA 4.2 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).
- 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 4.2 software has been installed.
- 4) Start the FTRA software. See the “FTRA Initialization” section in the *FTP-Based Table Retrieve Application (FTRA) User Guide* for more information on starting the FTRA software. The existing FTRA STP Connection Configuration data will automatically be converted during the FTRA system initialization.

#### 1.1.5 Procedure – Upgrade to FTRA 4.2 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.
- 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 -xvzf 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 4.2 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* for more information on starting the FTRA software. The existing FTRA STP Connection Configuration data will automatically be converted during the FTRA system initialization.