TIBCO Runtime Agent™

Installation

Software Release 5.8.0
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two-second advantage™

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Preface

This software may be available on multiple operating systems. However, not all operating system platforms for a specific software version are released at the same time. Please see the readme file for the availability of this software version on a specific operating system platform.

This manual explains how to install TIBCO Runtime Agent.

Topics

- Changes from the Previous Release of this Guide, page vi
- Related Documentation, page vii
- Typographical Conventions, page ix
- Connecting with TIBCO Resources, page xii

Changes from the Previous Release of this Guide

This section itemizes the major changes from the previous release of this guide.

TIBCO Rendezvous

The TIBCO Rendezvous section is removed from Chapter 3, Installed Components as TIBCO Rendezvous is installed separately.

Related Documentation

This section lists documentation resources you may find useful.

TIBCO Runtime Agent Documentation

The TIBCO Runtime Agent software suite is a prerequisite for other TIBCO software products. In addition to Runtime Agent components, the software suite includes the third-party libraries used by other TIBCO products, TIBCO Designer™, Java Runtime Environment (JRE), TIBCO Rendezvous®, and TIBCO Hawk®.

The following documents form the TIBCO Runtime Agent documentation set:

- *TIBCO Runtime Agent Installation* Read this manual for instructions on site preparation and installation.
- *TIBCO Runtime Agent Installing Into a Cluster* Read this manual for instructions on installing TIBCO applications into a cluster environment.
- *TIBCO Runtime Agent Upgrading to Release 5.8* Read this manual for instructions on upgrading from release 5.x to release 5.8.
- *TIBCO Runtime Agent Domain Utility User's Guide* Read this manual for instructions on using TIBCO Domain Utility to create and manage administration domains.
- *TIBCO Runtime Agent Scripting Deployment User's Guide* Read this manual for instructions on using the AppManage scripting utility to deploy applications.
- *TIBCO Runtime Agent Authentication API User's Guide* Read this manual for instructions on using Authentication API.
- *TIBCO Runtime Agent Release Notes* Read the release notes for a list of new and changed features. This document also contains lists of known issues and closed issues for this release.

Other TIBCO Product Documentation

You may find it useful to read the documentation for the following TIBCO products:

- TIBCO Administrator™ : TIBCO Administrator allows you to manage users, machines and applications defined in a TIBCO administration domain. The TIBCO Administrator graphical user interface enables users to deploy, monitor, and start and stop TIBCO applications.
- TIBCO Designer: This graphical user interface is used for designing and creating integration project configurations and building an Enterprise Archive (EAR) for the

project. The EAR can then be used by TIBCO Administrator for deploying and running the application.

- TIBCO Hawk: This is a tool for monitoring and managing distributed applications and operating systems.
- TIBCO Rendezvous: Rendezvous enables programs running on many different kinds of computers on a network to communicate seamlessly. It includes two main components: the Rendezvous application programming interface (API) in several languages, and the Rendezvous daemon.
- TIBCO Enterprise Message Service™: This software lets application programs send and receive messages using the Java Message Service (JMS) protocol. It also integrates with TIBCO Rendezvous and TIBCO SmartSockets® messaging products.
- TIBCO ActiveMatrix BusinessWorks™: ActiveMatrix BusinessWorks is a scalable, extensible, and easy to use integration platform that allows you to develop integration projects. ActiveMatrix BusinessWorks includes a GUI for defining business processes and an engine that executes the process.
- TIBCO® Adapter software: TIBCO Runtime Agent is a prerequisite for TIBCO Adapter products. You will therefore find TIBCO Adapter product documentation useful.

Typographical Conventions

The following typographical conventions are used in this manual.

Table 1 General Typographical Conventions

Convention	Use
ENV_NAME *TIBCO_HOME* *TRA_HOME*	TIBCO products are installed into an installation environment. A product installed into an installation environment does not access components in other installation environments. Incompatible products and multiple instances of the same product must be installed into different installation environments. An installation environment consists of the following properties: • **Name** Identifies the installation environment. This name is referenced in documentation as *ENV_NAME*. On Microsoft Windows, the name is appended to the name of Windows services created by the installer and is a component of the path to the product shortcut in the Windows Start > All Programs menu. • **Path** The folder into which the product is installed. This folder is referenced in documentation as *TIBCO_HOME*. TIBCO TRA installs into a directory within *TIBCO_HOME*. This directory is referenced in documentation as *TRA_HOME*. The default value of *TRA_HOME* depends on the operating system. For example on Windows systems, the default value is C:\tibco\tra\5.8.
code font	Code font identifies commands, code examples, filenames, pathnames, and output displayed in a command window. For example: Use MyCommand to start the foo process.
bold code font	Bold code font is used in the following ways: • In procedures, to indicate what a user types. For example: Type **admin**. • In large code samples, to indicate the parts of the sample that are of particular interest. • In command syntax, to indicate the default parameter for a command. For example, if no parameter is specified, MyCommand is enabled: MyCommand [**enable** | disable]

Table 1 General Typographical Conventions (Cont'd)

Convention	Use
italic font	Italic font is used in the following ways: • To indicate a document title. For example: See *TIBCO ActiveMatrix BusinessWorks Concepts*. • To introduce new terms For example: A portal page may contain several portlets. *Portlets* are mini-applications that run in a portal. • To indicate a variable in a command or code syntax that you must replace. For example: MyCommand *PathName*
Key combinations	Key name separated by a plus sign indicate keys pressed simultaneously. For example: Ctrl+C. Key names separated by a comma and space indicate keys pressed one after the other. For example: Esc, Ctrl+Q.
	The note icon indicates information that is of special interest or importance, for example, an additional action required only in certain circumstances.
	The tip icon indicates an idea that could be useful, for example, a way to apply the information provided in the current section to achieve a specific result.
	The warning icon indicates the potential for a damaging situation, for example, data loss or corruption if certain steps are taken or not taken.

Table 2 Syntax Typographical Conventions

Convention	Use
[ ]	An optional item in a command or code syntax. For example: MyCommand [optional_parameter] required_parameter
|	A logical OR that separates multiple items of which only one may be chosen. For example, you can select only one of the following parameters: MyCommand para1 | param2 | param3

Table 2 Syntax Typographical Conventions

Convention	Use
{ }	A logical group of items in a command. Other syntax notations may appear within each logical group. For example, the following command requires two parameters, which can be either the pair param1 and param2, or the pair param3 and param4. MyCommand {param1 param2} | {param3 param4} In the next example, the command requires two parameters. The first parameter can be either param1 or param2 and the second can be either param3 or param4: MyCommand {param1 | param2} {param3 | param4} In the next example, the command can accept either two or three parameters. The first parameter must be param1. You can optionally include param2 as the second parameter. And the last parameter is either param3 or param4. MyCommand param1 [param2] {param3 | param4}

Connecting with TIBCO Resources

How to Join TIBCOmmunity

TIBCOmmunity is an online destination for TIBCO customers, partners, and resident experts. It is a place to share and access the collective experience of the TIBCO community. TIBCOmmunity offers forums, blogs, and access to a variety of resources. To register, go to http://www.tibcommunity.com.

How to Access TIBCO Documentation

You can access TIBCO documentation here:

http://docs.tibco.com

How to Contact TIBCO Support

For comments or problems with this manual or the software it addresses, contact TIBCO Support as follows:

- For an overview of TIBCO Support, and information about getting started with TIBCO Support, visit this site:

  http://www.tibco.com/services/support

- If you already have a valid maintenance or support contract, visit this site:

  https://support.tibco.com

  Entry to this site requires a user name and password. If you do not have a user name, you can request one.

Chapter 1 Installation Overview

This chapter provides an overview of the installer program.

Topics

- Introduction, page 2
- Installing Versions with Higher Version Numbers, page 4
- Installation Modes and Disk Space, page 5

Introduction

The TIBCO Runtime Agent package provides the following products and product components:

- TIBCO Designer (designer/*version* folder) — The GUI component used at design-time to configure TIBCO Adapter instances, TIBCO ActiveMatrix BusinessWorks processes and other TIBCO applications.
- TIBCO Runtime Agent (tra/*version* folder) — Runtime Agent includes TIBCO Domain Utility and other TIBCO libraries and tools. The folder also includes the TIBCO Wrapper utility, a number of repository management utilities, and more.
- Third-party libraries (tpcl/*version* folder) — Contains third-party libraries used by TIBCO applications. For a complete list, see the version.txt file in the tra/*version*/ folder.
- Java Runtime Environment (tibcojre/*version* folder)
- TIBCO Rendezvous (tibrv/*version* folder) — Complete installation of TIBCO Rendezvous, as required by your installed TIBCO applications.
- TIBCO Hawk (hawk/*version* folder) — TIBCO Runtime Agent leverages TIBCO Hawk to deploy, manage, and monitor applications.

If you decide to perform a custom installation, and choose not to install one or more products or product components, you should review the list of required software that is listed in the readme.txt file.

64-bit Installation Packages

Use one of the 64-bit installation packages if you want to utilize the advantages of the 64-bit JRE over the 32-bit JRE. After installation using a 64-bit installation package on a machine, all administration servers, TIBCO Hawk agents, and applications on that machine will run in 64-bit mode.

Note the following if you have an existing TIBCO Runtime Agent installation:

- If you have an existing 32-bit TIBCO Runtime Agent installation, you can either use the 32-bit installer or uninstall your existing installation completely before using the 64-bit installer. You can, however, configure your existing installation to run in 64-bit mode by following the instructions provided by the documentation accompanying your software release, then use the 64-bit installer.
- If you have an existing 64-bit TIBCO Runtime Agent installation because you installed your software version using a 64-bit installer provided for your platform, then you *must* use the 64-bit installer.

- If you have manually configured your TIBCO Runtime Agent installation to run in 64-bit mode, then you *must* use the 64-bit installer.

If you have an existing 32-bit TIBCO Runtime Agent installation, using the 64-bit installer will render the existing 32-bit installation *non-operational*. The same is true if you have a 64-bit installation and use the 32-bit installer.

TIBCO Universal Installer

TIBCO Runtime Agent 5.8 is installed with the TIBCO UniversalInstaller.

The TIBCO Universal Installer supports multiple TIBCO_HOME directories on a system and displays a panel asking whether to use a new or existing one. When using TIBCO Runtime Agent and products that depend on it, you should always use the same TIBCO_HOME directory. This is because, for backward compatibility, the old installation registry (vpd.properties) is still utilized and will be shared by all TIBCO_HOMEs created by the universal installer.

Installing Versions with Higher Version Numbers

TIBCO products use a three-digit release number which makes it possible to specify major, minor, and service pack releases. For example, release 2.1.3 uses major version 2, minor version1, and service pack 3.

- If you are installing using a service pack release (for example, 5.6.1 over 5.6.0), the installer will silently overwrite the existing version of the software. You do not need to uninstall the existing installation. Simply stop all running TIBCO software before installing.
- If you are installing a major or minor release, the installer will create a new directory in the old installation directory that is named after the two-digit release number. For example, if your prior version was installed in c:\tibco\tra\5.7, and you install version 5.8, the product will be installed in c:\tibco\tra\5.8. The old installation is not removed, and must be uninstalled separately if you wish to remove it.

If you install a product and that product is already installed on your machine, you cannot choose a different location from that specified above. If you wish to install the product in a different location, you must completely remove the product from the machine.

Product Dependency Checking During Installation

TIBCO Runtime Agent has dependencies on other TIBCO products. For example, Runtime Agent depends on TIBCO Rendezvous and TIBCO Hawk. These product dependencies are enforced and bound during installation. Install time binding is done by substituting the values of various tags (such as %TIBCO_HAWK_HOME%, %TIBCO_RV_HOME%) and updating properties in many properties files.

Since dependencies are enforced during installation, the installer can determine the version and location of all dependent products through the installation registry. Version and location information is then substituted in many properties files, typically *.tra files. Moreover, many properties such as tibco.env.CUSTOM_PALETTE_PATH, tibco.env.CUSTOM_CP_EXT and tibco.env.CUSTOM_PATH are also updated during installation. Enforcing dependency checking allows out-of-the-box product functionality.

Installation Modes and Disk Space

This section explains the installation modes and disk space requirements.

Installation Modes

Three installation modes are available: GUI, console, and silent. GUI mode provides a typical installation experience for a GUI environment. Console mode can be used with a command line environment when a GUI environment is not available. Silent mode is suitable for scripted, non-interactive installation.

Installer Log File

The installer log file, tibco_universal_installer.timestamp.username_install.log, is written to the .TIBCO/install_<timestamp> folder of the user's home directory. The installer log file captures the following information:

- Installation environment details such as user that invoked the installer, hostname, Java home in the environment, operating system details, and so on.
- List of assemblies installed.
- Information related to the ANT scripts that are executed by the installer.

To change the location of the installer log file, specify the option -V logFile="myLogFile" when you run the installer.

System Memory

A minimum of 2 GB of physical memory is recommended.

Disk Space

Disk Space Before Installation

The installer files may consume up to 500 MB of disk space depending on the operating system platform being installed.

Temporary Disk Space Required by the Installer

The installer requires at least 150 MB of free space in the temporary directory. On Microsoft Windows, the temporary directory location is %SystemDrive%:\Documents and Settings\user_name\Local Settings\Temp.

The installer calculates the disk space required in product home location for the selected components. The calculation is done before the actual installation (copying of files to system) begins. The installer will proceed only if sufficient free disk space is available in product home location.

However, if disk space is consumed by another process while the installer is copying the files, and if the required disk space is thereby reduced, the installer may fail and will then give a failure message.

While performing installation, avoid running other processes that consume disk space in product home location.

Chapter 2 Installing TIBCO Runtime Agent

This guide explains how to install TIBCO Runtime Agent on all supported platforms

Topics

- Installation Prerequisites, page 8
- Installation Options, page 10
- Uninstalling TIBCO Runtime Agent, page 13
- Post Installation Requirements on UNIX, page 14

Installation Prerequisites

The following is a list of prerequisites for installing TIBCO Runtime Agent.

Supported Platforms

See the TIBCO Runtime Agent readme file for a list of supported platforms.

Supported Vendor-supplied Database Drivers

The following vendor-supplied database drivers are supported:

- Oracle
  - Oracle Thin-driver
  - Oracle Thick-driver

When using an Oracle thick driver, an Oracle client must be installed on all Administrator client machines.

- Microsoft SQL Server
  - Microsoft JDBC driver
- IBM DB2 Universal Database

See the TIBCO Runtime Agent readme file for versions of supported vendor-supplied database drivers.

Installer Account

On Windows, to install this product, the account you use to log into the machine must have administrator privileges.

On Unix, the product can be installed by a regular (non-root) user and super-user (root). Different users can install the same product at different locations. You must have write permission to the /tmp directory or the installer will throw output permission denied error in the console.

Installing to a Networked Drive

If you intend to install the product onto a networked drive, you must have permissions to write to that drive.

If you do not know how to do this, go to the machine so you can install locally, or consult Microsoft Windows online help.

Installing on GUI Mode on Unix

A GUI environment such as CDE (that is, X Windows) is required to run the installer in GUI mode. It is not required for a console or silent installation.

See DISPLAY Variable FAQ on page 45 for information about installing on Unix systems.

Installing on Windows 2003 and 2008 Terminal Server

There are two modes in Windows Terminal Server: *Execute* and *Install*. Users are logged on by default in Execute mode, which allows them to run applications. To install TIBCO Runtime Agent so that everyone can use it, log on as administrator in Install mode. When the adapter is installed in the Install mode, the installation registry is maintained in *SystemDrive*:\WINDOWS.

Windows Terminal Server must be running in remote admin mode, not application sharing mode. TIBCO Runtime Agent is not supported if installed on a machine that is using Windows Terminal Server in application sharing mode.

The best way to install the TIBCO Runtime Agent on Windows Terminal Server is to use the Add/Remove Programs control panel applet. This automatically sets your mode to Install during the installation and then back to Execute afterwards. Alternatively, you can manually change your mode to Install before starting the installation by typing the following at a command prompt:

```
C:\> change user /install
```

Change back to Execute mode after installation is complete by typing:

```
C:\> change user /execute
```

To check your current mode, type the following:

```
C:\> change user /query
```

Installation Options

TIBCO Installer can run in GUI, console, or silent modes. Each mode is supported on all platforms.

- GUI mode presents panels that allow you to make choices about product selection, product location, and so on.
- Console mode allows you to run the installer from the command line. This is useful if your machine does not have a window environment or if you wish to install in silent mode. Silent mode installs without prompting you for information.
- Silent mode installs using values in .silent file. Silent mode installs in console mode without prompting you for input.

TIBCO Rendezvous software (licensed for use with TIBCO Runtime Agent) can be installed prior to TIBCO Runtime Agent installation or it can be installed in conjunction with TIBCO Runtime Agent.

- To install TIBCO Rendezvous before installing TIBCO Runtime Agent, follow the installation instructions in the TIBCO Rendezvous Installation Guide. Then proceed with the TIBCO Runtime Agent installation following the steps below, ignoring the references to TIBCO Rendezvous since they will no longer be applicable.
- To install TIBCO Rendezvous in conjunction with TIBCO Runtime Agent, perform the following steps.

— TIBCO Runtime Agent requires TIBCO Rendezvous 8.4.0 as the minimum version.

— TIBCO Rendezvous software need not be extracted (unzipped). It can be copied in the location where the TIBCO Runtime Agent has been extracted. The installer uses the TIBCO Rendezvous package for installing TIBCO Rendezvous without the need to unpack the package contents.

When installing TIBCO Runtime Agent on UNIX platforms, you are prompted to provide the location for the TIBCO installation home. The location you provide must not contain the space character.

On Windows platforms, *TRA_HOME* can contain the space character.

Install Using GUI Mode

To install TIBCO Runtime Agent in GUI mode:

1. Open the physical media or download the package(s) you wish to install:

- TIBCO Runtime Agent

- TIBCO Rendezvous

2. Extract the package(s) to a temporary directory.
3. Navigate to the temporary directory.
4. Run **TIBCOUniversalInstaller**. The Welcome screen displays.
5. Click **Next**. The License Agreement screen appears. After reading through the license text, click **I accept the terms of the license agreement** and then click **Next**.
6. The Installation Profile Selection screen displays. Click a profile on the left or check the Customize Installation checkbox and check the checkboxes next to the features to install on the right.
7. Click **Next**. The TIBCO Installation Home screen displays.

- **Create a new** *TIBCO_HOME* To install the product into a new installation environment, specify the following properties:
  - **Name** Identifies the installation environment. The name cannot contain special characters such as "*", "?", ">", "<", ":", "|", "/", "\", or quotes (").

    The name is appended to the name of Windows services created by the installer and is a component of the path to the product in the Windows Start > All Programs menu.
  - **Path** The directory into which the product is installed. Type a path or click **Browse** to specify the path or accept the default location.

    The path cannot contain special characters such as "*", "#", "?", ">", "<", "%", "&", "$", "`" or "|". The path cannot be the same as the path of an existing environment.
- **Use an existing** *TIBCO_HOME* To install the product into an existing installation environment, select the environment from the Environment drop-down list.

  Refer *TIBCO Runtime Agent Release Notes* for any known restrictions.

8. Click **Next**. The Pre-Install summary screen displays. Verify the list of products selected for install and then click **Install**.
9. The Post-Install Summary screen appears. This screen summarizes the installation process. Click **Finish** to complete the installation process and close the installer window.

Install Using Console Mode

To install the software in console mode:

1. Open the physical media or download the package(s) you wish to install:

- TIBCO Runtime Agent

- TIBCO Rendezvous

2. Extract the package(s) to a temporary directory.
3. Using a console window, navigate to the temporary directory.
4. Run **TIBCOUniversalInstaller -console**.
5. Complete the installation by responding to the console window prompts.

Install Using Silent Mode

In silent mode, the universal installer does not prompt for any inputs during installation. Instead, the inputs are read from a response file that can be provided as a command-line parameter. If no value is specified, the installer uses the default TIBCOUniversalInstaller_TRA_*version_number*.silent file.

The TIBCOUniversalInstaller_TRA_*version_number*.silent file is packaged in the directory that contains the universal installer. Edit the file with information for your environment before launching the silent installation. The file includes comments that describe the installation properties you can set. While you can use the TIBCOUniversalInstaller_TRA_*version_number*.silent file, it's good practice to copy the file to a different name and use that file for the silent install.

The following procedure explains how to install a TIBCO Runtime Agent in silent mode. If errors occur during installation, they will be listed in the installation log file contained in *User_Home*/.TIBCO directory.

1. Open the physical media or download the package(s) you wish to install:

- TIBCO Runtime Agent
- TIBCO Rendezvous

2. Extract the package(s) to a temporary directory.
3. Using a console window, navigate to the temporary directory.
4. Make a copy of the TIBCOUniversalInstaller_TRA_version_number.silent file and rename the file.
5. Using a text editor, open the copied file and update the install location and features to install.
6. Run the following:

   Windows TIBCOUniversalInstaller.cmd -silent -V responseFile="*myfilename*.silent"

   UNIX TIBCOUniversalInstaller.bin -silent -V responseFile="*myfilename*.silent"

Uninstalling TIBCO Runtime Agent

This section explains how to uninstall TIBCO Runtime Agent.

When you uninstall TIBCO Runtime Agent, only files that were created during installation are uninstalled. Other files, such as files created as a result of a deployment are not uninstalled.

To Uninstall TIBCO Runtime Agent:

1. Shut down all running TIBCO applications.
2. Navigate to *TIBCO_HOME*/tools/universal_installer and run TIBCOUniversalInstaller to launch the InstallShield wizard.
3. Select the **Uninstall Products From Selected TIBCO Home Location** radio button.
4. Specify the *TIBCO_HOME* where TIBCO Runtime Agent is installed and click the **Next** button.
5. The Welcome dialog appears. Click the **Next** button.
6. Choose the **Custom Uninstall (Select The Products To Be Removed)** radio button. The wizard provides two uninstallation options:
   - **Custom Uninstall** You can select the products to be removed.
   - **Typical Uninstall** The universal uninstaller removes all the products in this *TIBCO_HOME*.
7. Click the **Next** button. Check the checkboxes of the products to be uninstalled and click the **Next** button.
8. Review the Pre-Uninstall Summary and click the **Uninstall** button to start the uninstallation process.
9. Review the Post-Uninstall Summary and click the **Finish** button to exit the wizard.

Use the same way to uninstall TIBCO ActiveMatrix BusinessWorks 5.9. If *TIBCO_HOME*_uninstall\univeral_uninstall is used to uninstall TIBCO ActiveMatrix BusinessWorks 5.9, TIBCO ActiveMatrix BusinessWorks 5.9 cannot be re-installed successfully.

Post Installation Requirements on UNIX

This section describes the post installation requirements on UNIX.

Set Permissions for PGM Transport

After installing TIBCO Runtime Agent on an HPIA platform using PGM as the transport protocol with either a 32-bit or 64-bit package, the PGM variant requires privileged access to raw sockets on each daemon host computer. In some environments, raw access is considered a security risk. If this privilege is not available, use the TRDP variant. To determine whether this privilege is available in your environment, consult your local system and network administrators.

Change TIBCO Hawk HMA Permissions

Modify the permissions of the TIBCO Hawk HMA (tibhawkhma) as shown:

```
cd $TIBCO_HAWK_HOME/bin/tibhawkhma
chown root tibhawkhma
chmod u+s tibhawkhma
```

On the AIX platforms, the tibhawkhma must be run as root and must not use setuid.

Link TIBCO Hawk HMA with TIBCO Rendezvous Library

On all supported platforms, the TIBCO Hawk HMA (tibhawkhma) is dynamically linked with the TIBCO Rendezvous client libraries. This section describes the required post-install steps.

- HP-UX 11i PA-RISC 32-bit

  Add TIBCO Rendezvous library path to the /etc/dld.sl.conf file.

  The dld.sl.conf file contains trusted paths to search the libraries. If you have the September 2005 Quality Pack patch bundle installed, specify a list of trusted paths in /etc/dld.sl.conf. If a path in an environment variable is a trusted path, it will also be searched for libraries.

  No post-install steps are required for the HP-UX 64-bit platforms.

- Linux x86 32-bit/64-bit

  Update the /etc/ld.so.conf file and add $RVHOME/lib to the list. This must be the actual path and not an $RVHOME variable.

  Run ldconfig.

- Solaris

  Add the $RVHOME/lib directory to the trusted list using the crle command on the 32-bit and 64-bit platforms.

  The crle command allows you to create and display a runtime linking configuration file.

  — Solaris 8-10 SPARC 32-bit/64-bit

    Run "crle -u -s $RVHOME/lib" or "crle -u -s /path/to/directory -64"

  — Solaris 10 x86 32-bit/64-bit - The crle command can be used as follows:

    crle -u -s <path to the $RVHOME/lib directory>

    where:

  -u specifies that the configuration file needs to be updated.

  -s specifies the new trusted directory for the secure objects.

Post Installation Steps for HP-UX (IA-64/Itanium) 11.23

When using HP-UX (IA-64/Itanium) 11.23, complete the following steps:

1. Install the patch PHSS_38134.
2. Add *TIBCO_HOME*/tibrv/*version_number*/lib to the /etc/dld.sl.conf file.

Chapter 3 Installed Components

This chapter introduces the components installed with TIBCO Runtime Agent.

Topics

- Overview, page 18
- TIBCO Designer, page 19
- Java Runtime Environment, page 21
- TIBCO Hawk Agent, page 22
- Third-Party Libraries, page 23
- TIBCO Domain Utility, page 24
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Overview

TIBCO Runtime Agent runs on each machine on which TIBCO software is installed and executes scripts, sends alerts, and performs recovery as specified. The TIBCO Runtime Agent has two main functions:

- Supplies an agent that is running in the background on each machine.
  - The agent is responsible for starting and stopping processes that run on a machine according to deployment information.
  - The agent monitors the machine. That information is then visible via TIBCO Administrator Enterprise Edition.
- Supplies the run-time environment, that is, all shared libraries including third-party libraries used by TIBCO products. The run-time environment includes the following:
  - TIBCO Designer (see page 19)
  - Java Runtime Environment (see page 21)
  - TIBCO Hawk agent (see page 22)
  - TIBCO Rendezvous
  - Third-party libraries (see page 23)
  - TIBCO runtime libraries

When you install a new version of TIBCO Runtime Agent, the installer creates a folder named after the software version and places all TIBCO Runtime Agent folders and files into that folder. This chapter describes the components, lists the files and folders that are part of that component and gives additional comments as appropriate.

TIBCO Designer

TIBCO Runtime Agent includes the TIBCO Designer product, which allows you to configure TIBCO products. Depending on the product you installed, you can, for example, use TIBCO Designer to create TIBCO ActiveMatrix BusinessWorks process definitions or create adapter configurations.

TIBCO Designer is an easy to use graphical user interface for creating integration projects. TIBCO Designer allows you to drag and drop components into a project and then specify configuration information for each component.

When you install TIBCO Designer, it includes the framework, and a small number of palettes. Information is available as follows:

Table 3 TIBCO Designer Components

Component	Functionality and Documentation
Framework	TIBCO Designer GUI. Includes drag and drop instantiation, customizable layout, and online help. Available palettes depend on installed product(s). *TIBCO Designer User's Guide*. Available via Help > Designer Help online.
Adapter Resources palette	The Generic Adapter configuration and associated Adapter Resources palette allow developers of custom adapters to define the adapter configuration to be associated with their Adapter SDK-based adapter program. If no custom palette exists for an adapter, and you open that adapter from TIBCO Designer, the elements are represented as resources inside a Generic Adapter Configuration. *TIBCO Designer Palette Reference* discusses how to use the resources in this palette.
Adapter Schema palette	The AESchemas folder and associated Adapter Schemas folder can be used to define schema for a custom adapter. *TIBCO Designer Palette Reference* discusses how to use the resources in this palette.

Table 3 TIBCO Designer Components

Component	Functionality and Documentation
Repository palette	By default, the Repository palette is not displayed because in almost all cases, it is appropriate to edit project repositories by editing the project directly. In some cases, for example, editing custom properties, using the Repository palette is appropriate. *TIBCO Designer Palette Reference* documents the Repository palette.

Java Runtime Environment

TIBCO Runtime Agent bundles the Java Runtime Environment (JRE).

A JRE installer is embedded in the TIBCO Runtime Agent suite installer. TIBCO Runtime Agent requires that the TIBCO installable JRE be installed. TIBCO Java applications will use the JRE installed by TIBCO.

You can manually configure environment variables and configuration files to force use of a different JRE.

TIBCO Hawk Agent

The TIBCO Runtime Agent installation includes a TIBCO Hawk agent. An Hawk agent is an autonomous process that resides on each computer on which TIBCO Runtime Agent is installed and monitors TIBCO applications on that computer.

The TIBCO Hawk agent operates autonomously and is active whenever the operating system it monitors is active. The Hawk agent uses a set of rules, called rulebases, to configure system management, status, and automation tasks. The Hawk agent monitors conditions on its local machine and send alerts over the network only when problems are detected.

Third-Party Libraries

A number of third-party libraries are included with the TIBCO Runtime Agent installation. What exactly is installed depends on the machine's operating system. The license files for third-party software are listed in the license file.

A Third-Party Core Libraries (tpcl) installer is part of the TIBCO Runtime Agent suite installer.

The tpcl folder does not contain jre, which is included in its own folder. See Java Runtime Environment on page 21 for details.

TIBCO Domain Utility

TIBCO Runtime Agent includes TIBCO Domain Utility that is used to manage the components available in an administration domain.

TIBCO Domain Utility provides:

- Machine Management
  - Add the machine on which TIBCO Domain Utility is running to an existing administration domain.
  - Join a node that is part of a cluster to an administration domain.
- Domain Configuration
  - Create a new administration domain for an existing TIBCO Administrator installation.
  - Add a secondary server to an administration domain.
  - Delete an administration domain. The administration server and the TIBCO Hawk agent for the administration domain must be shutdown before proceeding with this task.
  - Enable and configure HTTPS for a selected administration domain on the machine on which TIBCO Domain Utility is running.
- Server Settings
  - Change TIBCO Rendezvous parameters used by TIBCO Administrator and TIBCO Hawk for a selected administration domain on the machine on which TIBCO Domain Utility is running.
  - Change the administration user name and password for a selected administration domain.
  - Change LDAP configuration for a selected administration domain.
  - Change database configuration for a selected administration domain.
- Migration
  - Upgrade a release 5.x administration domain to release 5.8.

- TIBCO EMS Plug-in
  - Add a TIBCO Enterprise Message Service server to a selected administration domain.
  - Remove a TIBCO Enterprise Message Service server from a selected administration domain.
  - Update a TIBCO Enterprise Message Service server in a selected administration domain.
- Add a Servlet Engine Plug-in
  - Add or remove a servlet engine plug-in.

See the *TIBCO Runtime Agent Domain Utility User's Guide* for more information.

TIBCO Wrapper Utility

The TIBCO Wrapper utility allows deployment of a TIBCO product or TIBCO Adapter SDK based custom adapter as a service. Among other benefits, the wrapper allows the operating system to start the application automatically upon reboot, regardless of the operating system being used.

- On Microsoft Windows systems, a wrapped application can be installed and run as a Windows Service.
- On UNIX systems, the functionality serves as a process abstraction. Hooks for TIBCO Administrator mean that wrapped applications can be restarted on reboot under UNIX and monitored using TIBCO Administrator.

When invoked, the Wrapper searches its current directory for the *appname*.tra file. If that file is not found, it searches the PATH for *appname*.tra.

If a .tra file is not found in one of those locations, the Wrapper cannot start.

If you installed the TIBCO Runtime Agent package, TIBCO Wrapper will be transparent to you. If you installed the TIBCO Adapter SDK package, you can use the TIBCO Wrapper utility for both Java or C++ adapters. The utility uses standard Java properties files for configuration of Service and Java Virtual Machine (JVM) parameters.

The Wrapper fails if it is not started from the bin directory. The error message is "Failed to load shared library". The wrapper searches in the current directory for the *appname*.tra file. If that's not found, it searches the PATH for *appname*.tra. You can explicitly specify the location of the .tra using the --propFile argument for the wrapper.

Obfuscate Utility

The obfuscate utility allows you to encrypt confidential information such as passwords in property files using an encryption key. The obfuscate utility rewrites a Java property file by encrypting property values that start with a #!! or #! prefix. It supports three types of encryption keys. They are as follows:

- A custom encryption key. The encryption key is derived from a password provided by you. To use it, add the prefix #!! to the data you want to encrypt and use -password or -passwordFile command line parameters as appropriate. The password can contain any keyboard characters and has no length limit. If encrypting sensitive date in the deployment configuration file using your custom password, you need to provide the same password when using -passwordFile (See -passwordFile Option on page 26 in *TIBCO Runtime Agent Scripting Deployment User's Guide*).
- A machine key. To use a machine key, add the prefix #!! to the data you want to encrypt and do not use -password or -passwordFile.It can be used to encrypt a custom key in a properties file. Then you can use -passwordFile to encrypt data using the encrypted key in the properties file. If using a machine key, the data can not be decrypted on another machine.
- A fixed key. To use a fixed key, add the prefix #! to the data you want to encrypt. The fixed key is compatible with earlier versions of TIBCO Runtime Agent but does not provide the same level of security as the use of a machine key or a custom encryption key. It is used to encrypt an administration domain's password (See , Working with Passwords, on page 10 in *TIBCO Runtime Agent Scripting Deployment User's Guide*).

Passwords encrypted using Obfuscate Utility cannot be decrypted. Ownership is with customers to remember passwords in clear text. There is no utility provided by TIBCO to decrypt passwords encrypted using Obfuscate Utility.

The obfuscate utility supports the following flags:

- -password (to prompt you to type in a password)
- -passwordFile (to read a encrypted password from a given file)

Example

To use -password, follow these steps:

1. In the property file, add the prefix #!! to the data you want to encrypt. For example:

   Repo.serverCredential = #!!mysecret

2. Invoke the utility from the command line.

   TIBCO_HOME/tra/*version*/bin/obfuscate.exe -password *property_file_name*

3. Type in a password on the command line. For example:

   Please type in encryption password* ****

To use -passwordFile, you need to specify the path to the file that contains an encrypted password. That password is encrypted by a machine key. To do this, follow these steps:

1. Encrypt the password in a properties file using a machine key.
   a. Add the prefix #!! to the custom password you want to encrypt in a property file. For example:

      Only.one.key = #!!passwords-can_be-long-and-have-signs()@#$%^-etc.123

You can use only one custom key for password encryption at a time.

   b. Invoke the utility from the command line.

      TIBCO_HOME/tra/*version*/bin/obfuscate.exe *Encrypted_password_property_file_name*

2. Use -passwordFile to encrypt the data using the encrypted password in the property file from step 1.
   a. In the property file, add the prefix #!! to the data you want to encrypt. For example:

      Repo.serverCredential = #!!mysecret

   b. Invoke the utility from the command line.

      TIBCO_HOME/tra/*version*/bin/obfuscate.exe *property_file_name* -passwordFile *Encrypted_password_property_file_name*

ae2xsd Utility

The ae2xsd utility generates XSD schemas from a project metadata (TIBCO ActiveEnterprise classes and operations). The utility can be used for canonical models, the XML renderer in TIBCO IntegrationManager, as a source or target for XSLT mapping, and to share with downstream consumers of ActiveEnterprise generated XML.

The input is a multi-file project saved in ActiveEnterprise XML format. You cannot use this tool directly on a .dat file.

The syntax follows:

ae2xsd -project *path-to-multi-file-project-root-folder*
[-output *path-to-output-folder*]

Both paths can be absolute file paths, or relative to the current working directory.

The -output argument and *path* are optional. If omitted, a folder named AE2XSD-generated is created in the current working directory.

The tool assumes that your PATH variable points to your Java SDK location and your CLASSPATH points to the TIBCO Adapter SDK or TIBCO Runtime Agent .jar files.

The schemas are generated in a nested folder hierarchy that reflects their namespaces, which in turn reflects the locations of the .aeschema files within the project. When type name collisions occur, schema namespaces (and therefore output locations) will differ from the original project structure.

The utility has the same functionality as the TIBCO Designer Tools Export AS XML Schemas menu command.

Location

The utility is found in *TIBCO_HOME*/tra/*version*/bin.

tramodify Utility

This utility is deprecated. Use the traUpgradeManager utility instead.

The tramodify utility is used to switch adapter dependency from one TIBCO Runtime Agent version to another. The tool is also used to upgrade the references in a TIBCO product's template .tra files to use a new release. For example, the utility can be used to upgrade the TIBCO BusinessWorks 5.5 template file to use TIBCO Runtime Agent release 5.8.

Consider a scenario where TIBCO Runtime Agent 5.7 and TIBCO Adapter for ActiveDatabase 6.0 is installed. Then, TIBCO Runtime Agent 5.8 is installed and the adapter is to run against the new version. The adapter dependency on TIBCO Runtime Agent 5.7 can be changed to a dependency on TIBCO Runtime Agent 5.8 by running this utility.

Syntax

> tramodify *Product-Home n.n Directory*

Parameter	Description
Product Home	Home directory of TIBCO adapter for which TIBCO Runtime Agent dependency need to be changed.
n.n	Two digit TIBCO Runtime Agent version number to which adapter dependency needs to be changed.
Directory	The absolute location of the directory that contains set of custom TIBCO Runtime Agent files to be modified.

Options

The following options can also be specified:

Parameter	Description
tramodify --usage	Displays tramodify online help.
tramodify --ladapters	Generates a text file under *TIBCO_HOME*/log that lists the adapters installed on the machine, install location and dependent TIBCO Runtime Agent version for each adapter.

Examples

To migrate TIBCO Adapter for Siebel 6.0 from TIBCO Runtime Agent 5.7 to version 5.8:

```
> tramodify C:\tibco\adapter\adsbl\5.7 5.8
```

To migrate TIBCO Adapter for R/3 5.4 from TIBCO Runtime Agent 5.6 to version 5.8 and also to modify custom files (not installed by adapter package) located in the C:\tibco\customfiles directory:

```
> tramodify C:\tibco\adapter\adr3\5.7 5.8 C:\tibco\customfiles
```

Location

The tramodify utility is found in *TIBCO_HOME*/tra/*version*/bin.

traUpgradeManager Utility

The traUpgradeManager utility is used to

- change the Rendezvous version that TIBCO Runtime Agent uses
- change the versions that a deployed application or TIBCO product uses (for example, updating TIBCO BusinessWorks 5.6 to use TIBCO Runtime Agent 5.8). This includes updating references to TRA, JRE, and TPCL directories.

Do *not* use the traUpgradeManager utility to upgrade a domain. See *TIBCO Runtime Agent Upgrading to Release 5.8* for detailed instructions on upgrading a domain.

Also, make sure that you update the administration domain and the applications in the domain to use the same Rendezvous version.

Syntax

>traUpgradeManager -path *path* -traversion *tra_version* -rv *rv_version*
>traUpgradeManager -path *path* -revert
>traUpgradeManager -help

Parameter	Description
-path	The path of a .tra file you wish to modify, or a directory that includes multiple .tra files you wish to modify. Specify a directory if you wish to change all .tra files in the directory.
-include	The location of a file containing one entry per line that each act as <path>.
-exclude	The location of a file containing one name per line which will be excluded from replacement. The name can match either a directory or a file, which is not the path but just a simple name.
-traversion	TIBCO Runtime Agent version number.
-rv	The full path of the Rendezvous version to be used.
-jre	The location of a JRE to use. If not specified, the one that is associated with target TRA will be used.
-hawk	The location of Hawk. If neither -hawk or -nohawk is specified, the highest version of Hawk installed will be used.
-nohawk	Do not update the hawk home directory.

Parameter	Description
-keepRVDir	If not specified, any instances of RV_HOME/lib in the classpath will be replaced with RV_HOME/lib/tibrvj.jar.
-revert	Revert the latest substitution by removing the tra file and rename the backup file to it.
-help	Print this help information, but take no action.

Examples

To update the .tra files of an administration domain to use TIBCO Runtime Agent 5.8 and Rendezvous 8.0 (which resides at C:\tibrv80 in this example):

```
> traUpgradeManager -path C:\tibco\tra\domain\sample_domain -traversion 5.8 -rv C:\tibrv80
```

To update the .tra files of TIBCO Adapter for Siebel 6.0 from TIBCO Runtime Agent 5.6 to version 5.8 and Rendezvous 8.3 (which resides at C:\tibrv80 in this example):

```
> traUpgradeManager -path C:\tibco\adapter\adsbl\6.0 -traversion 5.8 -rv C:\tibrv80
```

Location

The traUpgradeManager utility is found in *TIBCO_HOME*/tra/*version*/bin.

traDBConfig Utility

The traDBConfig utility is used to configure a supported vendor-supplied database driver. If you choose not to specify a vendor-supplied driver during installation, and later wish to use it, you can use this utility to update your files quickly.

You must restart TIBCO Administrator and the TIBCO Hawk agent after using this utility for the changes to be reflected. See *TIBCO Runtime Agent Upgrading to Release 5.8* for detailed instructions on changing to a vendor-supplied database driver for your existing installations and domains, as well as issues and limitations associated with this utility.

Syntax

>traDBConfig -type *dbtype* -dbPath *db_driver_path* (-ociPath *oci_client_path*) [-product *product*|-path *directory*|-filelist *listfile*]

Parameter	Description
-type	The choices are: SQLServer, DB2, OracleThin and OracleThick.
-dbPath	The path of the vendor-supplied driver. For example: C:\oracle\product\10.1.0\db_1\jdbc\lib Specify the directory of the Oracle thick client if you specify OracleThick in -type.
-ociPath	The path of the Oracle OCI client directory. You must specify this field if you specify OracleThick in -type. On Windows, this is typically the *ORACLE_CLIENT_HOME*/BIN directory. On Unix systems, this is typically the *ORACLE_CLIENT_HOME*/lib or *ORACLE_CLIENT_HOME*/lib32 directory. For example: C:\oracle\product\10.2.0\client\BIN
-product	The product to configure: either tra for Runtime Agent or admin for TIBCO Administrator. If you use this parameter, the traDBConfig utility automatically updates the application files for Runtime Agent or TIBCO Administrator, respective, listed in Table 4 on page 35. However, it does not update the domain files. To do so, use the -file option. See Notes for more information.

Parameter	Description
-path	The path of a .tra file you wish to update, or a directory that includes multiple .tra files you wish to update. Specify a directory path if you wish to change a single .tra files in that directory.
-filelist	A text file that contains the lists of files to update. This file can include any combination of the files listed in Table 4 on page 35. Be sure to include all the files applicable to your installation, including application files as well as domain files. See Notes for more information. This file should be in the following format: FILES *file1*;*file2*;*file3*;...

Notes

In order for your installation of Runtime Agent or TIBCO Administrator and all your domains to function properly after using this utility, you must ensure that the utility updates all the files relevant to your installation.

If you have just installed Runtime Agent and TIBCO Administrator but have not added the machine to a domain, you may simply use the -product tra parameter and -product admin parameter to update the Runtime Agent and TIBCO Administrator files. After you update both the Runtime Agent and TIBCO Administrator files, you can use the vendor-supplied driver when creating new domains.

If you have installed both Runtime Agent and TIBCO Administrator, as well as created domains, then you must also update all the .tra files for the existing Hawk agents and administration servers. In this case, you can prepare a text file that contains a list of all the files that need to be updated and use the -filelist parameter, or you can execute traDBConfig with the -path parameter for each of the domain directories.

Table 4 Files for Update with traDBConfig Utility

	Files
Runtime Agent Files (Under *TIBCO_HOME*/tra/*version*)	template/domainutility/hawkagenttra.template bin/domain_create.tra bin/CorpUserSynchronizer.tra bin/CorpRoleSynchronizer.tra bin/AppManage.tra bin/RedeployAllAppsForUser.tra bin/MoveMachine.tra bin/ImportDomainSecurity.tra bin/Import2xSecurity.tra bin/ExportDomainSecurity.tra bin/domainutilitycmd.tra bin/domainutility.tra

Table 4 Files for Update with traDBConfig Utility

	Files
Domain Hawk Agent Files	*TIBCO_HOME*/tra/domain/*domain*/hawkagent_*domain*.tra
TIBCO Administrator Files (Under *TIBCO_HOME*/administrator/*version*)	template/tibcoadmintra.template
Domain Administration Server Files	*TIBCO_HOME*/administrator/domain/*domain*/tibcoadmin_*domain*.tra

Other Client Libraries

This section lists the various client libraries that are part of TIBCO Runtime Agent.

Repository Client Libraries and Utilities

The repository client libraries and utilities are included with the TIBCO Runtime Agent installation. The repository client interacts with the TIBCO Administrator server. See the *TIBCO Administrator Server Configuration Guide* for detailed information about the command line utilities available.

TIBCO Enterprise Message Service Libraries

TIBCO Enterprise Message Service software allows you to send messages from your applications according to the Java Messaging Service (JMS) protocol. A set of client libraries are included that support the EMS plug-in, which allows you to configure a TIBCO Enterprise Message Service server using TIBCO Administrator.

XML Related Libraries

A collection of XML-related libraries developed by TIBCO Software and used by TIBCO ActiveMatrix BusinessWorks, TIBCO IntegrationManager, TIBCO Designer, and other TIBCO applications that manipulate XML are included in TIBCO Runtime Agent.

Currently, these libraries do not expose a public API for use by customer applications.

Persistent Object Framework Libraries

The Persistent Object Framework (POF) libraries are used by TIBCO Administrator and TIBCO Domain Utility to implement domain management. The APIs are not intended for customer use.

TIBCO Crypto Library

The TIBCO Crypto library includes APIs used by TIBCO applications to encrypt data. The APIs are not intended for customer use. They are included as TIBCrypt.jar.

The TIBCO Crypto library does not include encryption but provides an interface that allows plugable support of third-party encryption libraries. The installation package includes the following security vendors:

- **Entrust** The default vendor. You can configure it to operate in FIPS 140-2 compliant mode. We use version 7.2 of the Security Toolkit for Java.
- **IBM** Also an FIPS 140-2 compliant vendor. This is only available for IBM systems. When using it, you need to install the the Unlimited Strength Jurisdiction policy that is from IBM.
- **Sun** The Java cryptography extension provided by J2SE.

If you want to use the Entrust or IBM security vendor in FIPS 140-2 compliant mode, you must add the following line in the .tra file for the application:

```
java.property.com.tibco.security.FIPS=true
```

For applications that require different cryptographic provider, follow these steps:

1. Make sure that the Java classpath includes the security vendor's .jar files. For example, to use the default Entrust provider, make sure that *TIBCO_HOME*/tcpl/*version*/lib/entrust is in the classpath.
2. In the .tra file for the application, define a new property:

   ```
   java.property.TIBCO_SECURITY_VENDOR=vendor
   ```

   Where *vendor* can be entrust61, ibm, or j2se.

Unicode Conversion

If Unicode conversion to or from arbitrary encodings is required, a file containing a lookup table is required. In that case, you must set the environment variable TIB_ICU_DATA to point to the directory that contains the file tibicudata.dat, which contains the lookup table used for conversion.

Location

The tibicudata.dat file is located in *TIBCO_HOME*/tra/*version*/config/g11n.

Schema Files

TIBCO Runtime Agent includes schema files for verifying adapter configuration information.

You can use the schema files to verify a configuration you prepared by editing an XML file. Usually you use these schema before using RepositoryImport to convert the schema to project format.

Location

The schema files are located in *TIBCO_HOME*/tra/*version*/schema.

Hotfix Libraries

A hotfix is a file or a collection of files that you can apply to TIBCO Runtime Agent to correct a specific problem. Hotfixes are downloaded from the TIBCO Support site and packaged in a tar or zip file. Instructions about installing the hotfix and the issues it addresses are included in the download package.

Hotfixes are applied only to software that is already installed when you apply the hotfixes. For example, if you remove TIBCO Runtime Agent and later reinstall it, you must also reinstall any hotfixes that apply to that TIBCO Runtime Agent.

TIBCO Runtime Agent 5.x hotfix libraries, jars and other files are installed under the hotfix folder. If you install a hotfix, you must ensure that the *tra_home*/hotfix/bin location is specified *before* the *tra_home*/bin and *tra_home*/lib in your PATH, LIBPATH, SHLIB_PATH or LD_LIBRARY_PATH, .tra file (if used) and so on. This allows your applications to use the hotfix files.

Documentation Locations

The following documentation is included with the TIBCO Runtime Agent installation.

Table 5 Documentation Locations

Component	Location
TIBCO Runtime Agent	*TIBCO_HOME*/tra/*version*/doc/tra
TIBCO Domain Utility	*TIBCO_HOME*/tra/*version*/doc/tra
TIBCO Designer	*TIBCO_HOME*/designer/*version*/doc
TIBCO Rendezvous	*RV_HOME*/doc or *RV_HOME*/*version*/doc

Chapter 4 Installation FAQs and Troubleshooting

This chapter lists answers to questions and potential issues.

Topics

- Running Out of Disk Space, page 44
- DISPLAY Variable FAQ, page 45
- TIBCO Administrator: Cannot View Installed Software, page 46

Running Out of Disk Space

The installer calculates the disk space required in product home location, for the selected components. The calculation is done before the actual installation (copying of files to system) begins. The installer will proceed only if sufficient free disk space is available in product home location.

However, if disk space is consumed by another process while the installer is copying the files, and if the required disk space is thereby reduced, then the installer may fail, then the installer may fail and will give a failure message.

Solution

While performing installation, avoid running other processes that consume disk space in product home location.

DISPLAY Variable FAQ

Why and how should I set the DISPLAY variable on UNIX platforms for GUI mode?

The installer on UNIX, must open an additional window, generally for graphics. It uses the DISPLAY environment variable to tell it on what computer to open the window. If the environment variable is not set, the installer will either wait or abort after displaying:

```
InstallShield Wizard
Initializing InstallShield Wizard...
Preparing Java(tm) Virtual Machine...
.....
.....
.....
```

The DISPLAY variable must be set to the IP address or name of the computer (on which the installer graphics window are to be displayed), followed by a screen address, which can be :0.0. For example:

```
# Bourne shell
DISPLAY=ip_address:0.0; export DISPLAY

# Korn shell
export DISPLAY=ip_address:0.0

# C-shell
setenv DISPLAY ip_address:0.0
```

For example, consider a scenario where you need to install the adapter on a remote HP-UX machine (named itaska). Because you have a Solaris 5.6 machine (named alaska) that has a video card and monitor installed, you can run an X-Window application on it. So you decide to telnet to itaska from alaska.

When you telnet to itaska, you will not get access to itaska's monitor and will be unable to display an X-Window application. That is why you must set the DISPLAY variable, which instructs the X-Server to redirect all windows to the computer set in the variable. Before doing so, the computer (specified in the DISPLAY variable) must give permissions to share its monitor.

```
alaska xhost + # give permission for all to its share monitor
alaska telnet itaska
Welcome to HP-UX itaska 11.00
User:
Password:
itaska export DISPLAY=alaska:0.0  # set display on alaska
itaska ./TIB_tra-suite_version_h7_110.bin
```

TIBCO Administrator: Cannot View Installed Software

In TIBCO Administrator, you can view the installed TIBCO software in the Resource Management > Installed Software dialog. If you cannot view the software for a machine and an entry similar to the following exists in the *TIBCO_HOME*/tra/domain/*domain*/logs/tsm.log file

2005 Sep 18 23:07:45:466 GMT -7 tsm Debug [] [TRA-000000] Thread TsmSyncInventory Waiting for a lock on a Vpd file

delete the file with the extension .installerregistrylock in the TIBCO home directory.

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