



LAN Server Edition Installation Guide

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Introduction

The purpose of this document is to guide a network administrator through the installation process for the TechKnowledge LAN server edition. The process is not complex, but does require extensive knowledge of server administration and cross platform file sharing setup.

This document is divided into three main sections. The first section, **Installation**, breaks down the server installation process and steps through items required before, during, and after installation.

The second section, **Configuration**, details the process of manually editing the main server configuration file after the server has been initially installed. This section is important for those who wish to change settings after the TechKnowledge LAN server has been installed.

The final section, **Running the Server**, steps through items such as booting and shutting down the server.

System Requirements

The TechKnowledge LAN Server has the following requirements:

- Processor: 600 Mhz +
- Hard Drive: 3 gigabytes free
- Sound Card: No
- Display Type: 17" monitor
- RAM: 128 +
- Video Card: 24 bit color, 800x600
- Storage Device(s): CD/DVD
- Windows 2000, XP (Home and Pro)
- Mac OS X
- JRE 1.4

Definitions

The following are definitions of common terms used throughout this document.

Student Client – These are student network clients. These users will run the “Login” executable and experience the student tutorial portion of the application. These clients do not have access to any of the TechKnowledge administrative functionality. The Student Client executable is located in the installation directory within an OS specific folder. For example, Windows Student Client is located in <installation path>/Win/TK_Login.exe.

Admin Client – These are instructor network clients. They will run the “Admin” executable and experience TechKnowledge as an instructor or teacher. They will have access to the TechKnowledge administrative functionality, including the ability to create classes and generate student reports. The Admin Client executable is located in the installation directory within an OS specific folder. For example, Windows Admin Client is located in <installation path>/Win/TK_Admin.exe.

TechKnowledge Data – This is the computer data that contains all of the vital system information for TechKnowledge, such as teacher passwords, class passwords, and student scores.

Full Access Permission – This permission setting allows for full access to data. In this scenario, the user or application process has full rights to read, write, modify, and delete data.

Read Only Access Permissions – This permission setting allows users to read and execute data, but not modify data.

1. Installation

The installation process for the TechKnowledge LAN server begins by discussing some fundamental decisions that must be made pertaining to the integration of the TechKnowledge LAN server into an existing school's network infrastructure. The installation instructions then move into a systematic walkthrough of an example server installation process, followed by the network setup process. The installation walkthrough concludes with the setup of Windows and Mac OS X Student and Admin client computers.

Pre-Installation

Before installing the TechKnowledge LAN server it important to consider the client executables share. The purpose of this file share is to allow network users access to the Student Client application (TK_Login.exe) and the Admin Client (TK_Admin.exe) application. These two executables are the main interface into the TechKnowledge system - all users will access the system through one of these two applications. Therefore, the directory containing these client applications must be shared and accessible from all client computers. The files must also have Read-Only permissions to allow multiple users access to the same executable files.

Server Installation

The next portion of the server installation process is the installation of the TechKnowledge LAN server via the "installer_lan_server" application found on the TechKnowledge LAN Edition CD. The following section is a sample walkthrough of the installation process. The file paths you choose may vary from those shown in the example walkthrough below.

1. Run the server installation wizard.
 - i. Launch the "Installer_Lan" application found on the TechKnowledge LAN Edition CD. **The TechKnowledge LAN installer application must be run under an account with full administrative privileges.**
 - ii. The TechKnowledge LAN Server requires Java Runtime Edition 1.4. The Server Installer application will begin by checking the target machine for this required piece of software. If a previous JRE 1.4 installation is not installed, it is available for download at http://www2.sratechknowledge.com/techmedia/TechKnowledge/data/web/lan_updates.html. If JRE 1.4 is detected by the installer, this step is skipped entirely.



Figure 3. The Select State installer dialog.

2. Select the State.
 - i. Select the installation state for TechKnowledge. This selection will cause TechKnowledge to use state-specific content when necessary.



Figure 4. The Install Directory installer dialog.

3. Select an installation path.
 - i. This is the path under which the TechKnowledge LAN server and all supporting data assets will be installed.

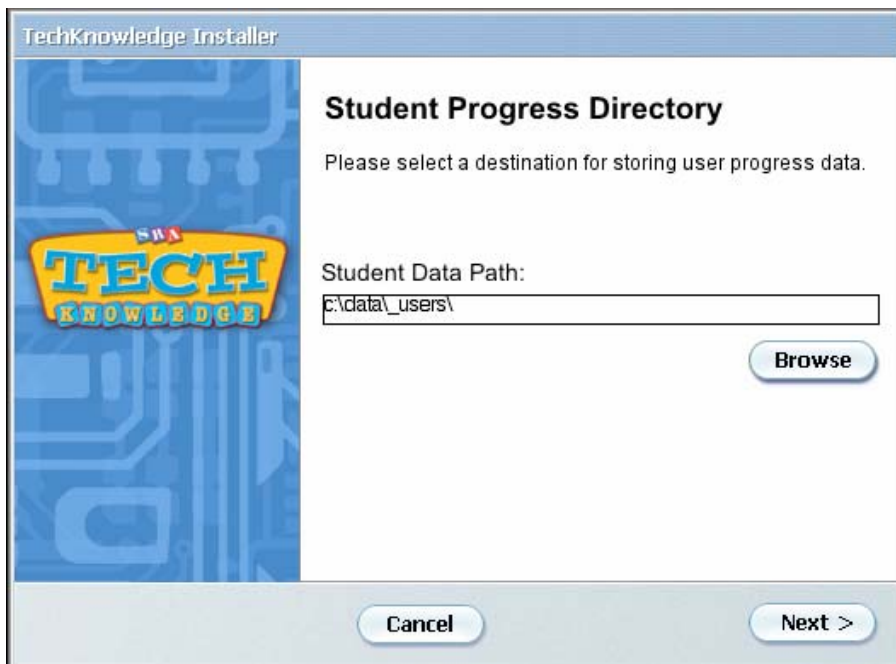


Figure 5. The Student Progress Directory installer dialog.

4. Select the location for the repository of student data.
 - i. This is the location where all of the TechKnowledge Data will be stored. It is vital that this location has "full access" permission for the running TechKnowledge LAN server application. This directory should also be in a

secure location, locked away from the Student Clients and Admin Clients. All interactions with this data will occur through the TechKnowledge LAN server, so no file share is necessary for this folder.

Note: No portion of this data directory should be exposed to the Student or Admin clients. All interactions with this directory will occur through the server. Therefore, the Student or Admin clients will access the data through the server, so the data directory must be in a location that is accessible relative to the server, not the network client.

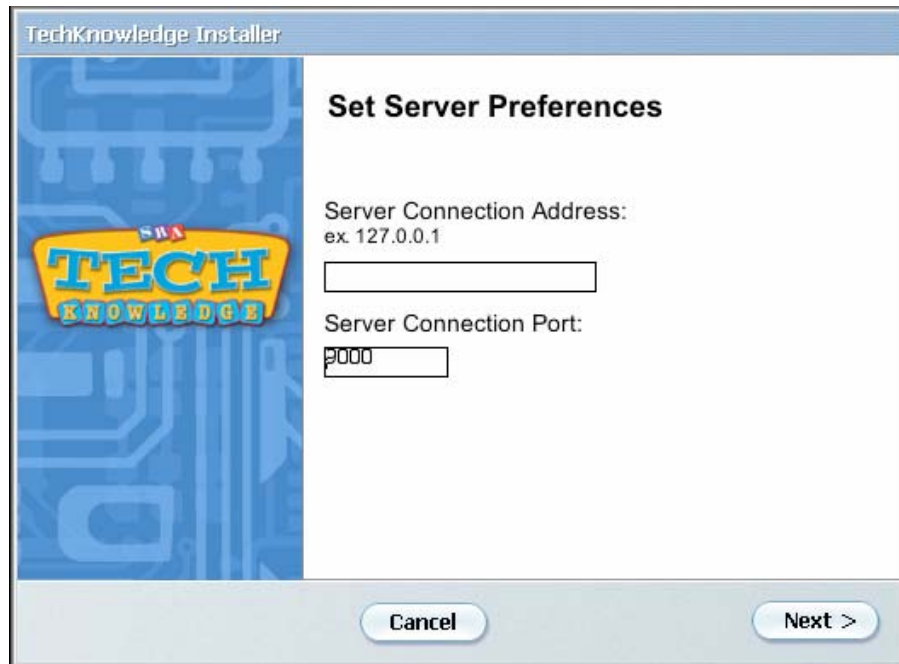


Figure 9. The Server Preferences installer dialog.

5. Specify the server connection address.
 - i. This is the network address of the server that will run the TechKnowledge LAN application. The server connection address is passed onto all client applications to insure that they can locate the running instance of the TechKnowledge LAN server. The server connection address value will be stored in the “<Client Application path>/data/_system/_definition_files/system.xml” file, and all Student and Admin clients will reference this file to obtain the server address. If the server address needs to be altered later, the property can be updated in this file.

Note: In order to avoid cross platform compatibility issues, the address should be supplied as the IP address of the computer on which the LAN Server is installed.

6. Server Connection port.
 - i. This is the listening port for the TechKnowledge server. The valid range values are 7000 – 9999.

7. Exit the installer application.
 - i. After the installation process is complete, quit the “Installer_Lan” application.

Post Installation

After the installation of the TechKnowledge LAN Server, steps must be taken to set up the Student and Admin client executables share and the preparation of Mac OS X compatible binary applications.

1. Prepare Mac OS X compatible Student and Admin client applications.
 - i. For installations that will service Mac OS X network clients, extract the "TK_Mac.zip" file located in the "<installation path>/" from a Macintosh computer. After expanding this file copy the "OSX" and "OS9" directories to the installation path. These directories should now be parallel to the Win directory. Copy the files admin and login to the "<installation path>/data/_shell/_global/files/_swf/" directory.

Note: These files **must** be expanded on a Macintosh computer or they may become corrupt and unusable.

2. Share the client executables directory.
 - i. A read only share must be set up so everyone on the network can access the TechKnowledge Student and Admin files. This share must be "read only" to insure that none of the vital TechKnowledge data assets may be inadvertently deleted or damaged by a user. The directory that must be shared is the "<installation path>/TechKnowledge" directory. The server installation path was chosen in Step 3 of the server installation process

Installing Multiple Grades

Installation of additional grade levels into the TechKnowledge LAN edition varies slightly from the initial server installation. For any subsequent grade installations, the installer will not step through the full configuration process, the installer will instead preserve any settings specified in the previous server setup. The installer will also maintain any previously installed student data files, report data files, and TechKnowledge supporting data from any previous installations. In order to completely reinstall the TechKnowledge LAN server, step through the "Uninstall Server" application and then run the "Install Server" application.

After the installation of additional grade levels, the TechKnowledge LAN server must be stopped and started again for the changes to take effect.

Uninstalling the Server

In order to uninstall the TechKnowledge LAN server or any installed grade levels, run the "Uninstall Server" application. The uninstaller offers two different options: un-installation of a specific grade level or un-installation of the entire TechKnowledge LAN server application. Uninstalling a specific grade level will only remove the specified grade level and will leave the TechKnowledge LAN application, student data files, and TechKnowledge supporting data for all other grades intact. The full un-installation option will remove the TechKnowledge LAN server and all associated components.

Note: Before running the TechKnowledge LAN uninstaller, be certain to quit all running server instances. You must also make sure that user data located in the “Users” directory is moved out of the installation path.

3. Running the Server

Launching the Server

For Windows, run the “Launch Server” shortcut in the “SRA_TechKnowledge” section of the Start menu.

- For Mac OS X run the LAN.jar file located in the “<installation path>/data/_application/_lan” directory.

Once running, the server will display the “Server Status” window which lists the status of the server and the number of currently connected client instances. The window also contains a “Quit” button for shutting down the server and a “Force Quit” button to force the immediate shutdown of the server.

Quitting the Server

To quit the server, press the “Quit” button on the server status window. Pressing the “Quit” button will begin the server shutdown process and suggest to the server that it should shut down at the first opportunity available. The server will not shut down if there are client processes currently connected. It will wait until all client processes are complete before shutting down. If the server must be shut down immediately, it can be force quit via the “Force Quit” button on the server status window, although there is a severe risk of data corruption under this course of action. This action will immediately terminate the server, regardless of whether or not there are active connected client processes.

4. Running the client

Launching the client applications

From the client computer, access the shared client directory for the specific client OS. Launch either of the TK_Login or TK_Admin applications.

Need Help?

Please use the contact information listed below if you need any help with the installation or utilization of TechKnowledge.

- Software Technical Support: 1-800-678-2747
- Customer Service: 1-888-772-4543
- Customer Service Website: www.sra4kids.com
- Address:
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