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Installing TRIP on Windows

TRIPsystem
Product Documentation

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Installing TRIPsystem on Windows

Requirements

To make a successful installation of TRIP possible, you will need to install TRIP on one of the supported Windows platforms. Please refer to the latest Release Notes for TRIPsystem for an up-to-date list of supported platforms.

64-bit Considerations

You cannot mix 32-bit and 64-bit versions of TRIP software. If you install the TRIPsystem, which is 64-bit software, you also need to install 64-bit versions of all server-side TRIP components you want to use on the same machine.

If you upgrade TRIPsystem while moving from an older 32-bit version to the current 64-bit version of the software, you should uninstall the other (32-bit) server-side TRIP products on the machine before you proceed with the TRIPsystem installation. Please refer to “Known problems” below.

The products affected by this are:

- TRIPjxp (only if the TdbLocalSession class is being used)
- TRIPmanager (affects the local computer connection)
- TRIPnpx (only if the TdbLocalSession class is being used)
- TRIPxml (included in TRIPsystem from version 8)
- TRIPcof
- TRIPview/TRIPviewC (replaced by TRIPcof)
- TRIPsql (included in TRIPsystem from version 8; its SDK remains separate)
- TRIPhighway

The TRIP products that are totally independent of whether the local TRIPsystem installation is in its 32-bit or 64-bit alternative are:

- TRIPagent
- TRIPjtk
- TRIPclient

Installations of these products do not have to be modified when upgrading TRIPsystem from a 32-bit version to a 64-bit version.

Before Installation

The installation program for TRIPsystem requires Microsoft .NET Framework 4.6.2. If not present on the target system, install it before starting the TRIPsystem installation.

This component is normally available by default on Windows. Should it for some reason not be, it can be installed via the Windows Control Panel. Select “Turn Windows features on or off” in the “Programs and Features” applet. This component can also be downloaded from Microsoft. Refer to the release notes for more information on what Windows versions are supported.

Installing TRIP using the MSI Installer

Log on as a user with administrator privileges. Unpack the distribution archive and run the installation installer package (MSI file). You should run the MSI file as Administrator.

The installation is fairly straightforward. Note that if you have a previous version of TRIPsystem already installed, you need to install the new version in a *different directory*. Installing the new version over the old one may break your installation.

When upgrading from an older TRIPsystem version, the older version must not be uninstalled prior to the installation of the new one, or else the upgrade procedure will not be able to detect and migrate your existing databases, users, groups, etc. See also the section “Upgrading from previous versions,” below.

Affected Files and Environment

Affected file	Operation	Comment
%windir%\System32\drivers\etc\services	Modified	The TCP service pctdbs is added with port number 23457.
(registry, environment) PATH	Modified	The TRIP bin directory is added to the system PATH.

After installation

Reboot

The installation program may recommend a reboot of the system after installation is complete. Even if the installation program does not prompt for a reboot, you may want to consider one anyway even if it is optional in such a case. Choosing not to reboot, especially after an upgrade, take care to close all console windows and other programs that may be using the old installation path. Alternatively log out and log in again. Not doing so may cause you to use the old TRIPsystem version accidentally.

After reboot, the system should be ready to use. The following sections contain information about optional post-installation and some other issues.

Requesting a new license

The license key for TRIPsystem vX.Y does not change as long as Major(X) and/or Minor(Y) version number doesn't change. You will therefore need to request a new license key if X and/or Y of the new system differs from your installed system. E.g. upgrading from 5.1-4 to 5.1-10 does not require a new license key but upgrading from 5.1-10 to 6.0 does.

Run GETHW to generate a license request, then run SETLOCK to set the license key provided by your TRIP distributor. Do this using a command prompt. Refer to the TRIP License Key Setting Guide (TRIP_license_key.pdf) for more information.

Firewall Configuration

TRIPsystem includes a network service that listens on TCP port nr 23457 via the tripnetd.exe executable. This port must be opened up in any firewall between the TRIPsystem server and machines on which the clients are running. Possible client software includes TRIPmanager, TRIPnpx and TRIPjpx as well as applications based on these, such as the TRIP Web Client.

Upgrading from previous versions

If you have an older version of TRIPsystem installed, the installation program will detect that and automatically transfer control information about your databases to the new installation.

Do not install the new version in the same directory as the previous one. Always use a version dependent installation directory for TRIPsystem, even if you choose to override the installation directory in the installation program.

Do not uninstall the older version prior to the installation of the new one, or else the upgrade procedure will not be able to detect and migrate your existing databases, users, groups, etc!

Note that an upgrade does not remove or replace files in your existing TRIPsystem installation.

After you have performed an upgrade install and rebooted the machine, do the following:

1. Create a backup of your `tdbs.conf` file (this is not required but is always a good idea).
2. Run SETLOCK to set the license key. Do this using a command prompt.

Once the installation of the new version is complete and you have verified that it works for you, you may want to uninstall the previous version. Note that uninstalling a previous version may disrupt your new installation slightly, so you may have to run the installation program of the new version again, selecting the *repair* option in the maintenance panel that will appear.

The TRIP namespace (tdbs.conf)

Older versions of TRIP used a file called C:\TRIPrcs that defined the TRIP environment. From TRIP version 7.0, this corresponds to the file tdbs.conf which is found in the 'conf' directory of the TRIP installation.

The tdbs.conf file uses the familiar Windows .INI format:

```
[Privileged]
TDBS_ACCDIR=C:\TRIP\accounting
TDBS_ACCFLG=8

[NonPrivileged]
TDBS_CTL= C:\Program Files\Smaser\TRIPsystem_v808\sys
TDBS_CHARS=MUL
```

The tdbs.conf is using named sections for the privileged and non-privileged definitions of names. The purpose of using the privileged section is to restrict access to those names which define privileged operations within the kernel (e.g. the accounting functions).

Most names are read by the kernel at the outermost level, i.e. if defined in the non-privileged section, they will be read from there first, then from the privileged level. Certain names can only be read from the Privileged section:

TDBS_ACCDIR	Directory for storing accounting files
TDBS_ACCFLG	Flags dictating the level of accounting performed
TripDaemonHost	Host machine of the TRIP daemon
TripDaemonPort	UDP port number to the TRIP daemon

Two last two entries, critical to proper functionality are given the following default values:

```
TripDaemonHost=localhost
TripDaemonPort=4712
```

The numeric value of TripDaemonPort represents a UDP port number. It may be changed if it clashes with a port number already in use by another application on the system.

Names within tdbs.conf can also use variable substitution to read from the user's environment. For example:

```
TDBS_SIF=C:\Program Files\Smaser\TRIPsystem\sif\%USERNAME
```

would define the location of SIF files as dependent on the user's login name.

Note that entries within the tdbs.conf file are case sensitive.

The TRIP daemon service on Windows

Command Line Options

The tripd service is installed, or uninstalled, from a command window, by running it with the required command line option. The command line options for tripd are listed below:

- i - install the tripd service
- u - uninstall the tripd service
- j - list all tripd jobs e.g. Indexes, Loads, Prints and Global updates
- L # - sets the event logging level

The valid event logging level values are:

1	Log errors and information messages
2	Log warnings only
3	Log errors, warnings and information messages
4	Log debug messages only
7	Log errors, warnings, debug and information messages

Note that the installation program contains routines which deal with the `-i` and `-u` option. This is the recommended way to perform any install or uninstall of the tripd service.

Event logging

The event application log in Windows will be updated if any of the following occur:

Event	Event type
Client startup	Information
Client shutdown	Information
Too many clients	Warning
Unknown client	Warning
Unable to open environment file	Warning
Port number incorrectly set	Error

The TRIPnet daemon

On Windows platforms, the TRIPserver program `tserver` is started by `tripnetd`. This service is listening for client session requests and launches an instance of `tserver` to take care of any session requested.

The `tripnetd` service is installed using the option `'install'` and uninstalled using the option `'uninstall'`. Note that the installation program contains routines that deal with this and that this is also the recommended way to perform any install or uninstall of this service.



Configuring a printer for TRIP

The ability of the TRIP daemon to send a print job to a printer is disabled by default. If it is wished to enable this functionality, carry out the following steps:

The print implementation under Windows requires the use of a shared printer. The installation procedure installs the TRIP daemon service to run as Local System, a user with no access to any network resources. As a first step, the TRIP daemon service must therefore be set to run as a user with access to the desired shared printer.

Open the Services applet from the control panel. In newer versions of Windows, this is available under the Administrative Tools section. Select TRIP Daemon and right click to bring up the context menu and select Properties. This will bring up a dialog window for editing the service properties. Account information can then be edited as necessary on the Log On tab.

The user of the printer must also have the rights "Act as part of the Operating System" set on the machine running the Trip Daemon process. Assign this right in the dialog displayed by selecting "Account Rights" from the "Policies" menu in the User Manager application.

Next, bring up the tdbb.conf file in a text editor and move to the non-privileged section. Set TDBS_PRINT to the network name of the printer you wish to use. Now set the TDBS_PRINTUSER to the name of a user having access to the printer. For example:

```
TDBS_PRINT=\\ServerName\\HPLaserJet  
TDBS_PRINTUSER=DOMAIN\\anonymous
```

NB: If a user other than the one specified to run the TRIP daemon service is specified in TDBS_PRINTUSER, the two different users must have the same password, otherwise the authentication routine used will fail.

Storing databases on a network drive

The ability of TRIP to access data on network drives is disabled by default. If this functionality should be enabled, please read and follow these instructions:

User Name for TRIP Services

The installation procedure installs the TRIP Daemon and the TRIPnet Daemon services to run as Local System, an account with no access to any network resources. As a first step, these services must therefore be set to run as a user with write access to the network drive on which the databases will be stored.

Open the Services applet from the control panel. In newer versions of Windows, this is available under the Administrative Tools section. Select TRIP Daemon and right click to bring up the context menu and select Properties. This will bring up a dialog window for editing the service properties. Account information can then be edited as necessary on the Log On tab. Repeat this for the TRIPnet Daemon service.

The TRIP service must also have the rights "Act as part of the Operating System" set on the machine running the Trip Daemon process. Assign this right in the dialog displayed by selecting "Account Rights" from the "Policies" menu in the User Manager application.

UNC Database Location

Location names for databases stored on a network drive must be defined in `tdbs.conf` with UNC path names under the Non-Privileged section. Paths with drive letters cannot be used for databases stored on a network drive.

This does NOT work:

```
NETWORK_DB=F:\path
```

This is what it should look like:

```
NETWORK_DB=\\fileserver\share\path
```

NB: If a printer has been configured for TRIP (see the previous section) make sure the same username is used for access to the network drive.

The stripping utility

This strangely named¹ utility checks for correct installation. It verifies that:

- The services file (%windir%\system32\drivers\etc\services) contains the pctdbs service
- It is possible to connect to trip via the net
- tripd is installed and running
- tripnetd is installed and running

The program should be run without arguments. A sample result from a run on a correctly set-up system is shown below:

```
Checking services file... ok.  
Checking connectability.. ok.  
Checking tripd..... ok.  
Checking tripnetd..... ok.
```

TRIP is alive - reporting version 6.0-0

The following is a result from a run on a system where tripd is stopped:

```
Checking services file... ok.  
Checking connectability.. ok.  
Checking tripd..... failed!
```

```
Service error: Trip Daemon service is not running.  
Checking tripnetd..... ok.
```

ERROR: TRIP daemon failure, notify your System Mgr.

The sTRIPping utility is a simple and useful tool to verify that the TRIP installation is correctly set up.

¹ The program name "stripping" stands for "server-side TRIP ping".

Environment Variables

Refer to the TRIPsystem Environment guide for details of environment variables in TRIP.



Administration interfaces

The TRIPclassic interface

TRIPclassic is the original environment for TRIP administration and text-based application development. Refer to the TRIPclassic Administration and User guides for details. The Administration Guide also contains instructions how to work with the € (Euro Currency Symbol) character.

To place a shortcut to TRIPclassic on the desktop, open the Windows Explorer and navigate to the bin directory under the TRIPsystem installation directory. Select the trip.exe file, right-click it and select "Send To" and Desktop (create shortcut). This will give you a shortcut to TRIPclassic on the desktop.

When you use this shortcut a command prompt window will be opened, in which TRIP will be started. The font used in this window is by default a raster font. The first time you open this window you should change the font to Lucida Console in order to be able to see national characters. You only need to do this once; it will be remembered as long as the window title is the same.

In older versions of TRIPclassic the command prompt window always used black background with white text, but from v7 onwards the command prompt window keeps the background and text colors that you setup for this window. You can also change the height of the window to a larger value, but the recommendation is to keep the width to 80 characters.

You can now also specify a color for the Bold text attribute by setting the environment variable TRIP_BOLD_COLOR=x in the tdb.conf file. Supported values for x are:

B = Blue, C = Cyan, G = Green, M = Magenta, R = Red, Y = Yellow

The Target of the TRIP classic shortcut looks like this:

```
<installdir>\bin\trip.exe
```

This will start TRIPclassic using the default code page, which can be overridden by setting the TRIP_CODEPAGE environment variable in the tdb.conf file. When TRIPsystem is installed on a Windows with a language other than Chinese, the TRIP_CODEPAGE variable is set to 858 by the installer.

Code page 858 supports pseudo graphics, which is used to create the "boxes" used by TRIPclassic to partition the window for searches, command history and display. Other code pages supported for pseudo graphics are 437, 850 and 865.

TRIPclassic may also be started by specifying the desired code page on the command line. If this is done, this overrides both the default code page and whatever value TRIP_CODEPAGE is set to in tdb.conf or the environment. Do this using the -cp argument, like this:

```
trip.exe -cp 858
```

The € (Euro) symbol is only supported by the Lucida Console font with the code pages 858 and 1252.

If you want to keep the old style you just set the code page to 1252 and choose black background and white text in the properties for the command prompt window started by the desktop shortcut. Command Prompts for TRIP saved in TRIP versions before v7 will continue as before until you change them.

To change the code page you just edit the Target of the shortcut (right-click and choose Properties) as listed above and enter the code page number of your choice. You can also add other TRIP parameters if you want some other TRIP behavior (TRIP -? gives a list).

If both the `-cp` parameter and the `TRIP_CODEPAGE` variable are used, the parameter to the trip call has the highest priority, and if none is given the fallback is the default code page of your PC.

For more information on `TRIP_CODEPAGE`, please refer to the Administration Guide.

If you want the window to stay open when you leave TRIP, you can change the Target to:

```
%SystemRoot%\System32\cmd.exe /k <installdir>\bin\trip.exe
```

The behavior of the numeric keypad on the keyboard has also been changed from v7, and will now be as described in the files `CCL_Command_Reference.pdf` and `TRIPclassic_User_Guide.pdf` and it now behaves in the same way as on Unix platforms.

The TRIPmanager interface

TRIPmanager, the administrations tool for TRIP, is a snap-in application for the Microsoft Management Console. Refer to the TRIPmanager Administration and User guides for details.

Note that TRIPmanager must be separately downloaded and installed. It is not part of the TRIPsystem installation package itself.

Removing a TRIP installation

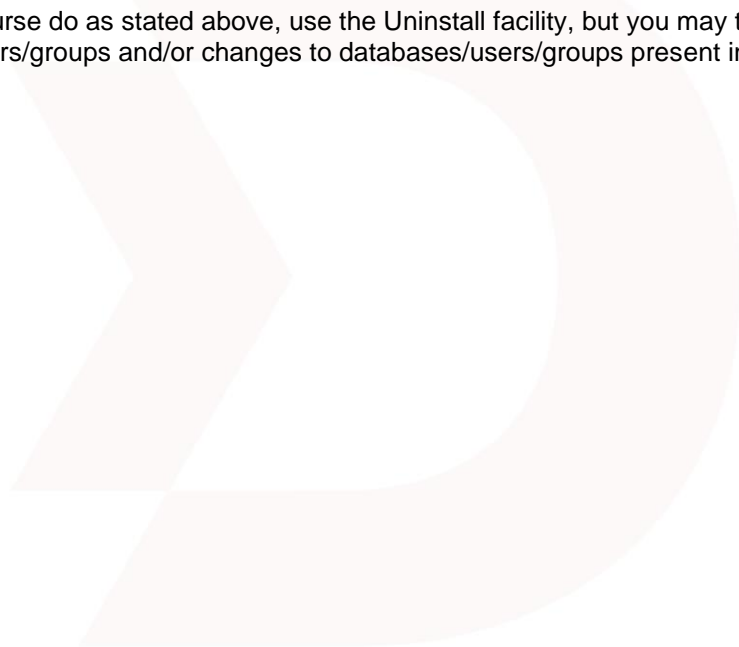
You can use the Uninstall facility of the TRIP installation package to uninstall a specific TRIP version. If you do this (especially if you remove the current version) you will probably have to use the Repair facility of the TRIP installation package to make the “new” current version work correctly (cf below, Rolling back a TRIP installation).

There is no automated total removal of TRIP from a server. If you want to completely uninstall TRIP, please refer to the Unix Installation Guide for TRIPsystem. There you will find a chapter with suggestions on how to completely remove a TRIP installation. These can be used, with suitable modifications, when uninstalling TRIP on a Windows platform.

Rolling back a TRIP installation

There is no automated way of rolling back a TRIP installation to an earlier TRIP version; it is a complicated procedure and it is very easy to destroy the TRIP installation, making it impossible to run TRIP. If you really need to roll back to an earlier version, please contact TRIP support for help.

You can of course do as stated above, use the Uninstall facility, but you may then lose databases/users/groups and/or changes to databases/users/groups present in the uninstalled version.



Known problems

Message when uninstalling/upgrading

When uninstalling TRIPsystem on a 64 bit platform (on rare occasions on 32 bit platforms too and/or when upgrading) you can get a pop-up window with this message:

The following applications are using files that need to be updated by this setup.

>>> TRIP Daemon <<<

>>> TRIPnet Daemon <<<

x Automatically close and attempt to restart applications

o Do not close applications. [A reboot will be required]

[OK]

In this case just click OK and the uninstalling/upgrading will continue and finish successfully.

The message can contain either TRIP Daemon or TRIPnet Daemon or both.

This is a known error and it will be fixed in some future version.

Repair-installation failure

The installation programs for versions 6.2-10:1 to 6.2-11:1 and 7.0-3:2 to 7.0-4:1 are likely to fail when run in repair mode. An error message with the following text is displayed:

"A CONTROL database from a previous installation was found in the installation directory. Please remove it and retry."

After which the repair attempt is aborted without any repair actions having been performed.

To perform a repair installation for these versions, the best option is to reinstall (i.e. uninstall followed by install). If reinstallation is not an option, please contact TRIP support.

Incomplete uninstallation

The installation programs for versions 6.2-10:1 to 6.2-11:1 and 7.0-3:2 to 7.0-4:1 are likely to fail to perform a full uninstallation if more than one version of TRIPsystem is installed. The items that may remain are:

- Services tripd and tripnetd remains registered as installed
- TRIPsystem bin directory remains in the system PATH environment variable
- Registry key HKEY_LOCAL_MACHINE\SOFTWARE\Tieto\TRIPsystem remains
- Registry key HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Tieto\TRIPsystem remains on 64-bit systems

To manually uninstall the services, open a command prompt with administrator privileges ("Run as administrator"), set the current directory to the bin directory of any remaining TRIPsystem installation, then execute:

```
tripd -u  
tripnetd -u
```

To remove the registry keys, use the Windows Registry Editor. Please note that deletion or modification of the registry can cause system instability if done incorrectly, so take extreme care to only remove the keys mentioned above.

