TRUEGRID MAC OSX INSTALLATION/LICENSING/UPGRADE

PLEASE NOTE: We have tried to be as complete as possible with these instructions. In most cases, there is no need to read all of this. Just call us at (925) 373-0628 and we will guide you through these steps. It is much easier than it looks and will only take a few minutes of your time.

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1.                      Quick Installation Instructions
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The following are the instructions to follow for a quick installation with the assumption that you have some familiarity with OSX and that you do not encounter any difficulties. For more information, please refer to the other parts of this document or contact our office for support.

There are three scenarios for an installation of TrueGrid: New license server [NEW], existing license server [OLD] and client installation [CLIENT]. Below, appropriate steps are tagged with NEW, OLD, CLIENT, and ALL for the appropriate installation instruction.

STEP 0. [ALL] Make sure that the TrueGrid directory exists.

STEP 1. [ALL] (if you have a CD/DVD).
        STEP 1a. Insert the CD or DVD
        STEP 1b. CD to the CD/DVD directory.

STEP 1. [ALL] (if you down load from the internet)
        STEP 1a. Download the appropriate version of OSX TrueGrid file.

STEP 2. [OLD] Make sure the license manager has been stopped

STEP 3. [ALL] Go to the TrueGrid Directory and unzip the TrueGrid File.

STEP 4. [ALL] If you did not use /usr/TrueGrid for the location of TrueGrid, you must make
        sure the TGHOME environment variable is set.

STEP 5. [OLD, CLIENT] Be sure that you have a copy of the .tgauth file in your Truegrid
         directory from the Truegrid directory of the TrueGrid license server computer. If you
         are just updating, then you probably already have a copy of this file.
          This is as far as you need to go with these instructions.

STEP 5. [NEW] (if you have a SafeNet hardware dongle (hardware key))
        STEP 5a. Install SafeNet Sentinel dongle (hardware key) driver
        STEP 5b. Install SafeNet Sentinel dongle (hardware key) into appropriate port

STEP 6. [NEW] Run the tgauth program in the TrueGrid directory.

STEP 7. [NEW] Enter company name.

STEP 8. [NEW] Send XYZ the Operating system type (OSX), company name, machine Id,
        check sum, and license type (trial, educational, annual, temporary, or perpetual)

STEP 9. [NEW] Enter the authorization code, and check sum from XYZ when prompted.

STEP 10. [NEW] Start the license daemon by answering yes when prompted.

STEP 11. [ALL] Run TrueGrid (tg, tgx, tgd or tgdx)

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2.          Availability
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The TrueGrid installation instructions can be found in the following text files:

System	Text File
UNIX	TGINSTALL_UNIX.txt
WINDOWS	TGINSTALL_WIN.txt
LINUX	TGINSTALL_LINUX.txt
OSX	TGINSTALL_OSX.txt

The TrueGrid CD or DVD and the TrueGrid download web site contains the TrueGrid software installation files for the following platforms:

Hardware	Operating System
DEC Alpha Workstations	Digital Unix
Hewlett Packard Workstations	HP-UX
IBM RS/6000 & PowerPC	AIX
Silicon Graphics Workstations	IRIX
SUN Workstations	Solaris 10
Personal Computers	WINDOWS (all)
Personal Computers	Linux (many)
MAC	OSX
Itanium	LINUX

The TrueGrid CD or DVD and the TrueGrid download web site contains the following TrueGrid documents:

Description

TrueGrid User Manual
TrueGrid Examples Manual
TrueGrid Output Manual (various)
TrueGrid Tutorial Manual
TrueGrid Introductory Training Manual
TrueGrid UNIX Installation Manual
TrueGrid WINDOWS Installation Manual
TrueGrid LINUX Installation Manual
TrueGrid OSX Installation Manual

The manuals are in Adobe Acrobat format and can be read using Version 4.0 or later of the Adobe Acrobat Reader software. Free copies of the Reader, available for all platforms, may be

obtained directly from Adobe via http://www.adobe.com

    The TrueGrid download web site containing these TrueGrid installation files and documents cannot be reached directly through the TrueGrid home web page for security reasons. This TrueGrid download web site will contain the latest improvements to TrueGrid. If you wish to download any of these files from the Internet, contact XYZ Scientific Applications, Inc. at info@truegrid.com or call (925) 373-0628 to obtain the URL.

    On the CD or DVD, the PDF documents are located in the DOCUMENTS directory.

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3.   Initial OSX Installation & Licensing
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This procedure uses the "unzip" utility to extract the TrueGrid files from the given archive file. The files extracted will reside in the TrueGrid directory (typically /usr/TrueGrid).

No effort is made to create this directory or set permissions on it. Rather, the user is responsible for this. To create /usr/TrueGrid, open a terminal or X window and change directory to /usr (cd /usr). Then create the TrueGrid directory ("sudo mkdir TrueGrid"). Make sure you have the owner and group ids set to what you want ("sudo chown <owner name>:<group name> TrueGrid") and the permissions set ("sudo chmod -R a+r TrueGrid").

The environment variable TGHOME must be set to this directory.(e.g., in csh and tcsh use "setenv TGHOME /usr/TrueGrid", in sh and bash use "set TGHOME=/usr/TrueGrid; export TGHOME=/usr/TrueGrid" .) The setting of the environment variable, TGHOME should be put in the .cshrc (for csh and tcsh) and .bashrc (for sh and bash) of each Truegrid user.

The remainder of this section is devoted to the licensing of TrueGrid on an OSX system. If your network already has a network license, then copy the .tgauth file from the TrueGrid directory on the license server into the TrueGrid directory where you have just installed Truegrid and you are ready to go.

The SafeNet Sentinel Drivers required for the license manager to run properly. To see if the Drivers are installed, check to the existence of the /Library/Extensions/Sentinel.kext/ (with a non-empty Content subdirectory). If the drivers are not installed, you can do so with the MAC OS-X installer in /usr/sbin. Go to the SafeNet subdirectory of your TrueGrid directory and type (all on one line)

sudo /usr/sbin/installer -pkg SentinelDriver1.0.0.pkg/ -target /Library/Extensions/Sentinel.kext

Please note that you need administrative privileges to do this installation and will need to restart your machine before the drivers become available.

Once the TrueGrid software is unpacked and the SafeNet drivers are installed, run tgauth in the TrueGrid directory to turn on the authorization.

STEP 1. Create the TrueGrid directory (usually /usr/TrueGrid) with the mkdir command. Set the environment variable TGHOME to this value.

STEP 2. Copy the .ZIP file to the TrueGrid directory (cp <tg file>.ZIP $TGHOME)

STEP 3. Change directory to the TrueGrid directory (cd $TGHOME).

STEP 4. Unpack the .ZIP file (unzip <tg file>.ZIP).

STEP 5. If the SafeNet drivers are not installed, go to the SafeNet sub-directory (cd SAFENET) and follow the instructions in the README file found there. Return to the TrueGrid directory (cd ..).Remember, SafeNet installation requires root privileges. Once the drivers are installed, root privileges should no longer be required.

STEP 6. Make sure the dongle is plugged into the USB port on the machine.

STEP 7. Run the authorization program (./tgauth). The dialog should be like this

Opened log file for current session: tgauth.log

LOCATION OF AUTHORIZATION FILES

Enter the directory where the authorization will be kept
(Default is "/usr/TrueGrid")
        Directory:

Note 1:   (Default is "<tg directory>") points to the current directory (in this case
               /usr/TrueGrid). You may hit the <enter> (<return>) key if this is acceptable or
               may type in a directory name. Whatever is used for the directory must be put into
               the TGHOME environment variable.

        HOST NAME OF DESIGNATED TrueGrid SERVER

        Enter the host name (or IP address) of the machine on which the TrueGrid License
Manager will reside. (Default is "dumcomputer")

        Host Name:

Note 2:   (Default is "<hostname>") hostname is the name for the current machine in the
               /etc/hosts file you are connected to a network (e.g. dumcomputer) and the name
               found with "uname -a" if you are not (e.g. dumcomputer.local). You probably
               want to take the default (just hit <enter> (<return>) key).

        NAME OF COMPANY

    Enter the name of your company or organization
        Company Name:

Note 3:   Enter a name for your company (e.g. XYZ Scientific App.) and include it in the
               information for authorization. Case and punctuation is important. ("XYZ
               Scientific App." is   different from "Xyz Scientific App.", "XYZ Scientific App",
               and "xyz scientific app.".) Shorter names provide less possibilities for problems

(e.g. "XYZSA" rather than "XYZ   Scientific App.").

OBTAIN AN AUTHORIZATION CODE FROM:

XYZ Scientific Applications, Inc.
1324 Concannon Boulevard
Livermore, CA 94550
PHONE (925) 373-0628
FAX   (925) 373-6326
EMAIL info@truegrid.com

REPORT THIS INFORMATION TO XYZ
   Company Name: <company>
   Machine ID: <id number>-1
   Checksum: <check number:
   Number of Users
   Authorization Type (perpetual, trial or special)

Note 4:   <company> above will be replaced with whatever you typed in for your company
            name above (see Note 3). <id number> should be a long (around 10 digits)
            number which identifies   your machine. If it is not followed by a "-1" then the
            dongle (hardware key) is not properly installed or is not   working correctly.
            <check number> is typically the letter "B" followed by a long (usually about 10
            digits) number.

ENTER YOUR AUTHORIZATION CODE
Authorization Code:
Checksum:

Note 5:   We will then provide you with an authorization code and checksum to fill in here.
            Typically, the authorization code is a groups of 5 upper case letters separated by
            spaces. There sometimes is an additional upper case letter at the end; e.g.:

            TTHIS WWILL BEAAA LLONG SSSET OFBIG LETTE RSSSS D
.
            The Checksum is another long number. This changes every time you start the
            license manager. These must be Entered exactly. If there is a checksum error, you
            will get another opportunity to enter the correct authorization code and checksum.
            Once the authorization code and checksum are accepted, DO NOT RE-ENTER
            THEM. This will unauthorize your machine.

AUTHORIZATION ENTRY SAVED TO <tg directory>/.tgauth

UPDATED STARUP FILE "start_tg" IN "<tg directory>"

Note 6:   <tg directory> is the directory name you entered above (see Note 1). .tgauth contains the authorization code plus the host name and company name entered above (Notes 2 an 3, respectively), plus a number which will change from time to time. Start_tg is a script which starts up the license manager. If TrueGrid gives you the message:

TrueGrid : License Manager does not respond.

TrueGrid License Manager is probably not running. Run "start_tg" to restart the license manager.

START THE LICENSE MANAGER DAEMON NOW (y or n)?

Note 7:   If the response is "y", the start_tg file will be executed. Otherwise, start_tg will need to be run before Truegrid will work

STEP 8. Check to see if everything works (./tg).

Note 8.   The start_tg files is a script that needs to be run each time the machine is rebooted. Alternatively, a line can be added to the /etc/rc file so that the license manager is restarted automatically when the system boots up. For example,

/usr/TrueGrid/LM/tglm /usr/TrueGrid

This line is found in the start_tg file. You will need to be root to make these modifications to the rc file and you should know what you are doing.

Note: 9.   You may also wish to include $TGHOME in the path so that the system knows where to find tg.

Note 10.   Support for parallel port dongles (hardware keys) is untested for OSX at this time.

Also see: Install_UNIX.txt

There are three features of OS-X which need to be addressed.

First, you should run TrueGrid from an X11 window application (X11.app) rather than the Terminal application (Terminal.app). You will need to make sure that X11 is installed from the OS X DVD. (it is not installed by default.)

Second, Most TrueGrid user prefer the window focus to follow the mouse rather than having to bring the window to the front to get focus. To get your X windows to use the focus follows the mouse, you need to type

defaults write com.apple.x11 wm_ffm true

in and Xterm or terminal to reset focus. You will need to log out of the X11 session before it can take effect front by clicking on it.

Third, if you plan to use your OS X machine as both a network license server and as a stand-alone TrueGrid platform, you will need to change the .tgauth (<period>tgauth) file to reflect the name of the server. The server name follows the first colon for each line in the file after the first. In our example above, the name should be dumcomputer (from the host file) if the license is being used on a network, and dumcomputer.local (from "uname -a") if the license is being used in stand-alone mode.

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4.        Upgrading a Perpetual License Authorization
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a. Maintenance

   If you have a perpetual license, then at some point, the TrueGrid License Manager will not
allow you to run newer versions of TrueGrid until you upgrade your license authorization key
held in the .tgauth file found in the TrueGrid directory. If the maintenance for your perpetual
license is current, you can contact XYZ Scientific Applications, Inc. for a new authorization
code. If your maintenance has lapsed, you must first purchase additional maintenance before
obtaining a new authorization key. If you are not sure, contact XYZ Scientific Applications, Inc.
to determine your maintenance status.

b. Acquiring a TrueGrid Authorization Code Upgrade

   You will probably have to be root to upgrade the license. Run the tgauth program found in the
TrueGrid directory. The default directory and host name is usually the correct choice. The
company name should be UPGRADE. You might see something like the following when you run
tgauth:

   Opened log file for current session: tgauth.log

   LOCATION OF AUTHORIZATION FILES

   Enter the directory where the authorization will be kept
   (Default is "/usr/TRUEGRID/mb")
      Directory:

   HOST NAME OF DESIGNATED TrueGrid SERVER

   Enter the host name (or IP address) of the machine
   on which the TrueGrid License Manager will reside.
   (Default is "xyz1")
         Host Name:

   NAME OF COMPANY

   Enter the name of your company or organization
         Company Name:UPGRADE

   OBTAIN AN AUTHORIZATION CODE FROM:

      XYZ Scientific Applications, Inc.
      1324 Concannon Boulevard

Livermore, CA 94550
PHONE (925) 373-0628
FAX   (925) 373-6326

REPORT THIS INFORMATION TO XYZ
   Company Name: UPGRADE
    Machine ID: 123456789
    Checksum: B 123456789
   Number of Users
 Authorization Type (perpetual, trial or special)

ENTER YOUR AUTHORIZATION CODE

   Report the company name as UPGRADE, the machine ID, and the Check sum. The number of users and authorization type will already be know by the person receiving your request, unless these things have changed since the last time an authorization code was send. You can also send this request by email to info@truegrid.com.

c. Installing an Authorization Code Upgrade

   This next step cannot be performed until XYZ Scientific Applications, Inc. has issued you a new authorization code and a new check sum. There is no need to stop the TrueGrid License Manager. If you killed tgauth in the step above, then re-run the tgauth program and make the same choices you made the first time you tgauth. When you get to the stage where the new authorization code and check sum are needed, enter them exactly as they were received. For example:

   Opened log file for current session: tgauth.log

LOCATION OF AUTHORIZATION FILES

Enter the directory where the authorization will be kept
(Default is "/usr/TRUEGRID/mb")
   Directory:

HOST NAME OF DESIGNATED TrueGrid SERVER

Enter the host name (or IP address) of the machine
on which the TrueGrid License Manager will reside.
(Default is "xyz1")
   Host Name:

NAME OF COMPANY

Enter the name of your company or organization

Company Name:UPGRADE

OBTAIN AN AUTHORIZATION CODE FROM:

XYZ Scientific Applications, Inc.
1324 Concannon Boulevard
Livermore, CA 94550
PHONE (925) 373-0628
FAX   (925) 373-6326

REPORT THIS INFORMATION TO XYZ
Company Name: UPGRADE
Machine ID: 123456789
Checksum: B 123456789
Number of Users
Authorization Type (perpetual, trial or special)

ENTER YOUR AUTHORIZATION CODE
Authorization Code:ABCDE FGHIJ KLMNO PQRST UVWXY Z
Checksum:123456789

If you make a mistake, you will receive an error message such as:

Checksum Error

ENTER YOUR AUTHORIZATION CODE
Authorization Code:

Try entering the authorization code and check sum again. If you continue to have difficulties,
contact XYZ Scientific Applications, Inc. If everything goes well, you should see the following:

AUTHORIZATION ENTRY SAVED TO /usr/TRUEGRID/mb/.tgauth

UPDATED START UP FILE "start_tg" IN "/usr/TRUEGRID/mb"

START THE LICENSE MANAGER DAEMON NOW (y or n)?n
TrueGrid License Manager Started

If the TrueGrid License Manager is running, be sure to answer no to starting the TrueGrid License Manager daemon. Then notify the TrueGrid License Manager that the file .tgauth file has been modified by running LM/tgperms. If the TrueGrid License Manager was killed before you began the authorization procedure, then answer yes to this question and it will be started.

Do not bother saving the authorization code since it is only good once. If you try to reuse it, it will destroy any existing valid authorization.

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5.   Upgrading TrueGrid
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   When you upgrade to a new version of TrueGrid, be sure that you are licensed to run it. If you are not sure if you are licensed to run this new version, contact XYZ Scientific Applications first to be sure. If you need to upgrade your license, see the section above. If you wish to experiment, be sure to make a backup copy of tg.exe, the *.data?, and menudesc.? files where * and ? are the usual wildcards. When you follow these upgrade procedures, the authorization file, .tgauth, will not be modified.

   If you have a TrueGrid distribution CD or DVD mounted on your system, then unzip the appropriate file into the TrueGrid directory. For example, if the CD or DVD is mounted on /cdrom and if you are upgrading on a MAC with the Intel CPU, you would type

          unzip /cdrom/tg*_IOSX.ZIP

where * is replaced by the version number.

   If you have been instructed to download a zipped file from our web page, then you should know that it is the same file as just described. After downloading the file, you should unzip this file.

   Copy the TrueGrid manuals in PDF format from the DOCUMENTS directory of the installation disk or from the download page at the TrueGrid web site to a location where users can find them. Let users know where these documents are and how to view them.

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6..   Using the Network License on the MAC
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   To be able to use the network license, TrueGrid must first be installed on a machine other than
the machine running the TrueGrid License Manager. The machine running the TrueGrid License
Manager can be an UNIX system, a WINDOWS system, a LINUX system, or another MAC
system.

   To install TrueGrid on a machine other than the machine running the TrueGrid License
Manager, create a directory where you wish to install TrueGrid. Change to that directory. Copy
the .tgauth authorization file from the machine running the TrueGrid License Manager to this
new directory.

   If you have a Truegrid distribution CD or DVD mounted on your system, then run the
appropriate setup program on the CD or DVD using a full path name to the executable. For
example, if the CD or DVD is mounted on /cdrom and if you are upgrading on a MAC
with the Intel CPU, you would type

         unzip /cdrom/tg*_IOSX.ZIP

where * is replaced by the version number.

   If you have been instructed to download an executable from our web page, then you should
know that it is the same file as just described. After downloading the file, you will need to add
execute permissions. Then, you should run this file.

   Copy the TrueGrid manuals in PDF format from the DOCUMENTS directory of the
installation disk or from the download page at the TrueGrid web site to a location where users
can find them. Let users know where these documents are and how to view them.

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7.   Moving the TrueGrid License Manager
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  You must contact XYZ Scientific Applications to move the TrueGrid License Manager to a different machine. You will be asked to document the removal of the TrueGrid License Manager from the old computer before you can receive a new authorization code for another computer. This will require the same procedures as a new installation.