

CADfix[®]

version 7.0

Software Installation Guide

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1.

Windows Installations

The installation procedure for the software on Windows and other Windows specific notes are contained in this section.

Please identify which of the three licence types outlined in section 1.3 you will be using. For a **node-locked** or **evaluation/demo** licence there is no server required, so all instructions relating to the licence server may be ignored.

Please ensure that any previous installation has been completely removed before you re-install CADfix.

Before running through the Windows installation procedure determine whether you want to install the Licence Manager only (not relevant for a **node-locked** or **evaluation/demo** licence type) or both CADfix and the Licence Manager. CADfix licensing operates from a licence server machine that is designated to perform the administrative tasks of controlling the CADfix licence. The Licence Server machine could be a machine actually running CADfix or another machine on a network that communicates using TCP/IP as the network protocol. The choice of the Licence Server is critical because if this machine is unavailable for any reason no other installation of CADfix on the network will work.

Following the instructions in section 1.2 will install the Licence Manager only or both the chosen CADfix product and the Licence Manager:

- Follow steps 1 to 10 skipping step 9 for installing the Licence Manager only, choosing option 2 at step 7.
- Follow steps 1 to 9 for installing both the CADfix product and the Licence Manager choosing one of the options; 1 or 2 at step 7.

1.1.

Windows - Disk Space Requirements

A CADfix installation requires approximately **250MB** of hard disk space on Windows:

1.2.

Windows - Installation from CDROM

ALL the Setup Type options will install the **Licence Manager**. If you are installing the **Licence Manager only** follow the installation instructions below choosing option 2 at step 7 and then repeat the process for each machine you are installing CADfix on.

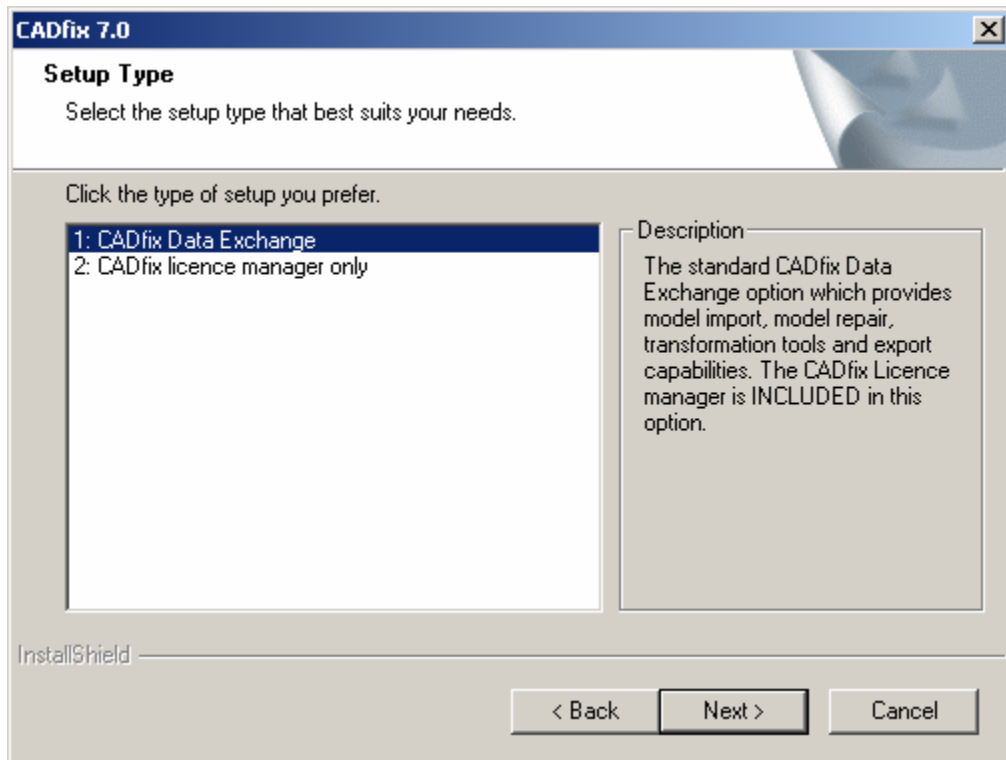
You will need **Administrator** privileges to install CADfix so that configuration settings can be written to the machine registry. The installation process is as follows:

1. Load the CADfix CD
2. Open the Explorer tool
3. Open the CDROM drive icon
4. Click on the 'Windows' folder on the CDROM
5. Once in the Windows folder, click on the 'Setup' workstation icon or the 'setup.exe' file and Install Shield will start. You should then see a Welcome window and upon reading the information contained here you should click on next.
6. The first user option is the Destination Location required. The default installation directory is:

C:\Program Files\CADfix 7.0

7. The next selection is the Setup Type options, which are:

- 1: CADfix Data Exchange
- 2: CADfix Licence Manager only

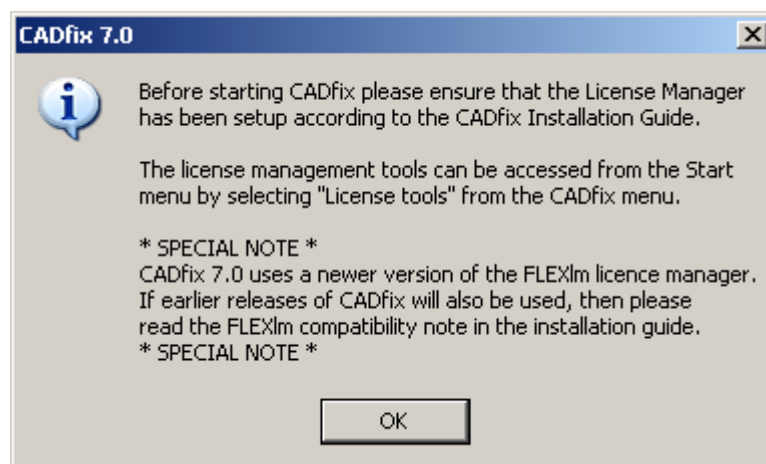


If you are installing the **Licence Manager** only select option 2.

The default is for the 'CADfix Data Exchange' configuration, which provides the model import, model repair and transformation tools and export capabilities.

You will also be prompted for a choice of language; either English or Japanese.

8. After installing the products selected the user should be presented with the following message:



See section 1.3.4 for the ***SPECIAL NOTE***

9. The final window should state that the CADfix installation is now complete.

10. Remove the CD from the disk drive and click **Finish** to complete the setup.

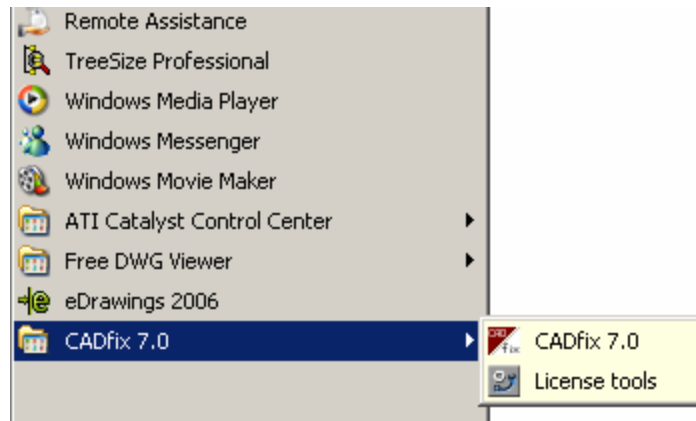
11. Before CADfix will run for a server type licence (not relevant for **node-locked** or **evaluation/demo** licence types) the FLEXlm™ Licence Manager must be set up. Please go to section 1.3 in this manual for instructions on installing the Licence Manager.

CADfix uses FLEXlm™ from Macrovision Corporation, as its licence management software. As part of every installation the licence management software will be installed in the `lic` directory e.g.

```
C:\Program Files\CADfix 7.0\lic\
```

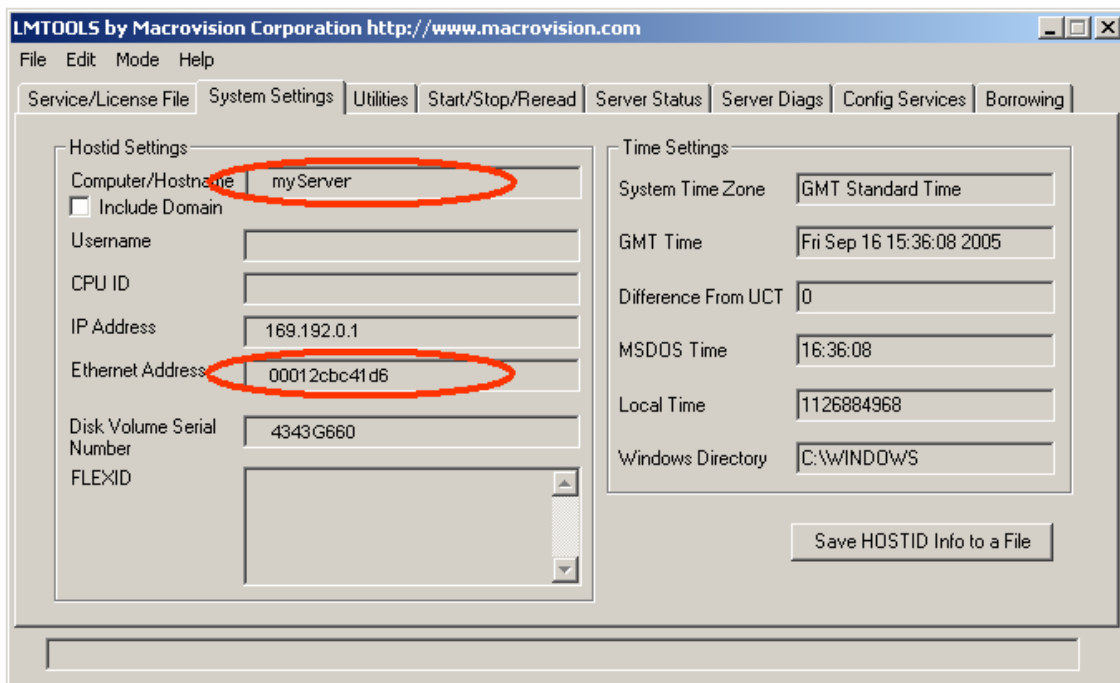
A full explanation of the licence management system may be found in the HTML file 'FLEXlm.htm' delivered as part of the CADfix installation and found within the `lic` directory.

Users must obtain a licence file named `cadfix.dat`, from TranscenData, and place it in the above `lic` directory.



The information necessary for the creation of a licence file may be obtained by selecting "Licence tools" from the CADfix 7.0 Start menu (not relevant for **node-locked** or **evaluation/demo** licence type – see below).

Select the "System Settings" tab and send the machine details indicated below to your supplier. The Ethernet Address will be used for a **node-locked** licence with the network system hostname also required to provide a **floating** licence server file.



Before activation of the CADfix licence management system the user must clarify which of the two types of licence is being used i.e. a **floating (concurrent)** licence or a **node-locked** licence:

- **floating (concurrent)** licence means anyone on the network can use the licensed software via TCP/IP, up to the limit specified in the licence file.
- **Node-locked** licence means the licensed software can only be used on one machine (node) and does

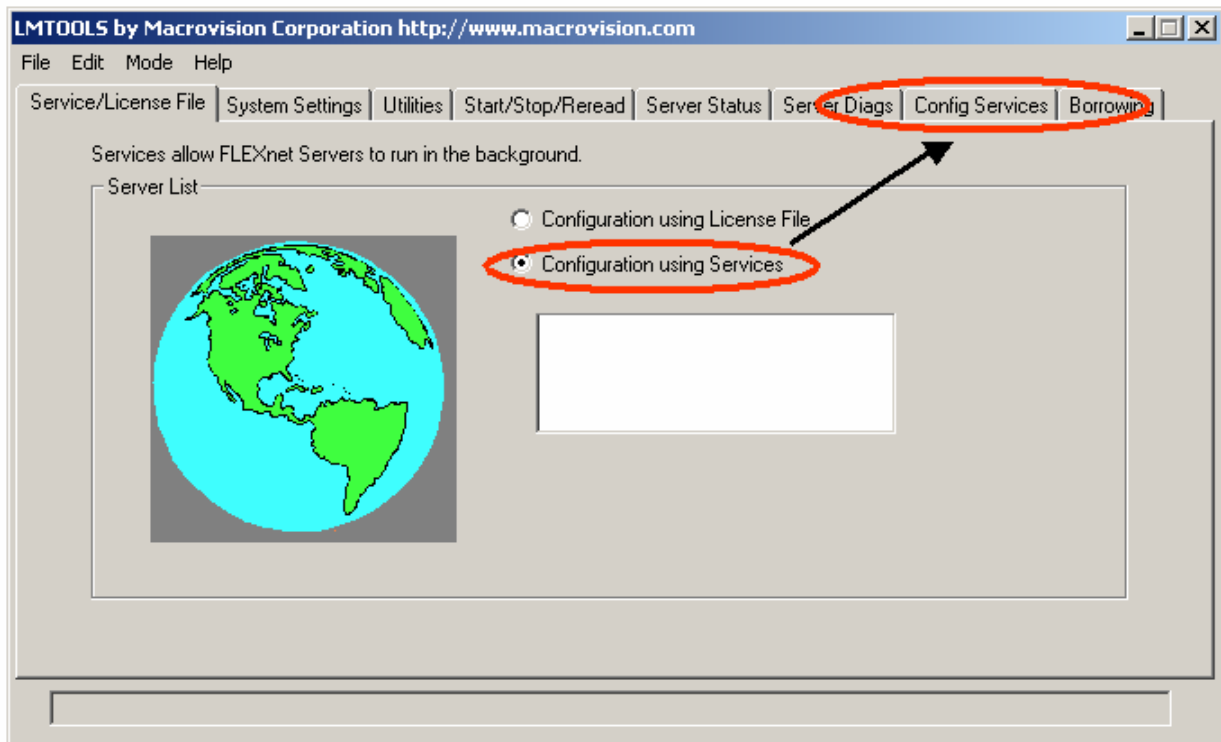
NOT need the licence server to be running.

- **evaluation/demo** licence is not node locked but it is time limited, so there is no licence server required.

If you have or are about to install a floating licence server system then you **must** supply the Host ID of the server machine. The server machine will be used for the licence management daemon and should therefore be chosen with care. Please read the 'FLEXlm.htm' reference material for advice on the choice of server machine.

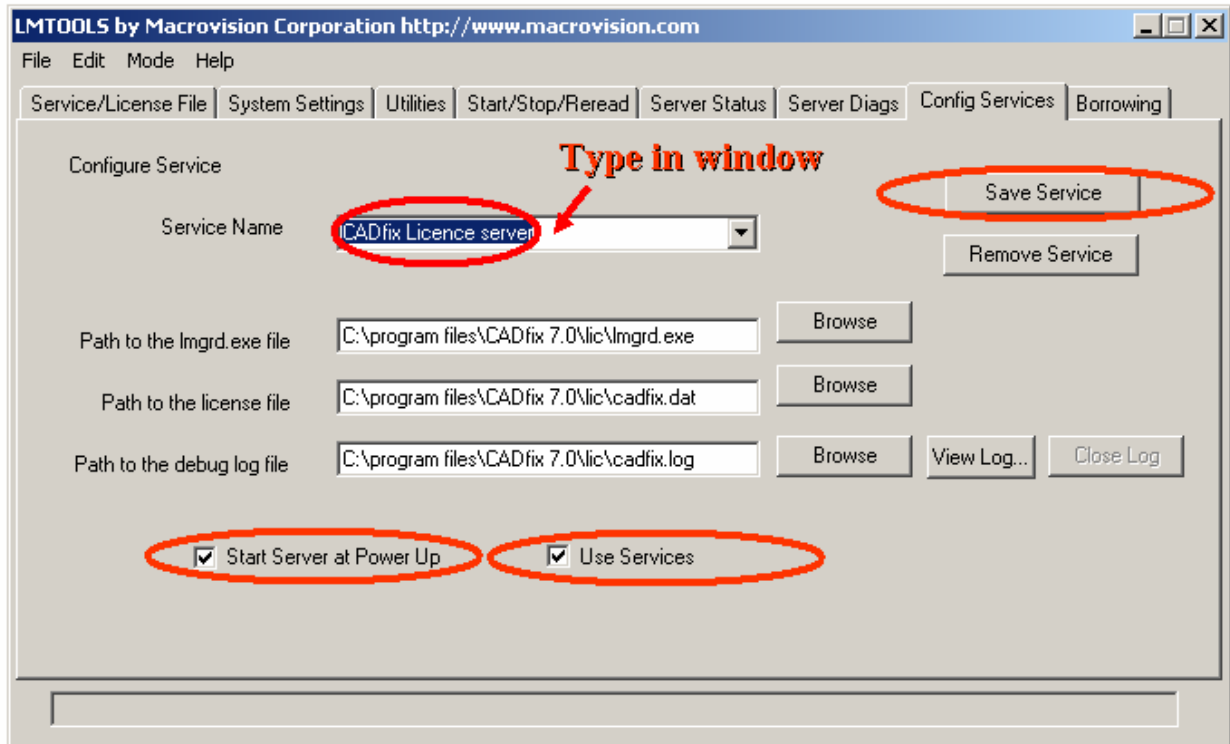
1.3.1. Windows - Licence Manager Setup - New Licence

1. Once you have received a `cadfix.dat` licence file from TranscenData place it in the `lic` directory.
2. If you have a **node-locked** or **evaluation/demo** licence you may start to run CADfix – see section 1.4. Please ignore the licence server installation instructions below for both **node-locked** and **evaluation/demo** types.
3. Select “Configuration using Services” and then the select the “Configure Services” tab.

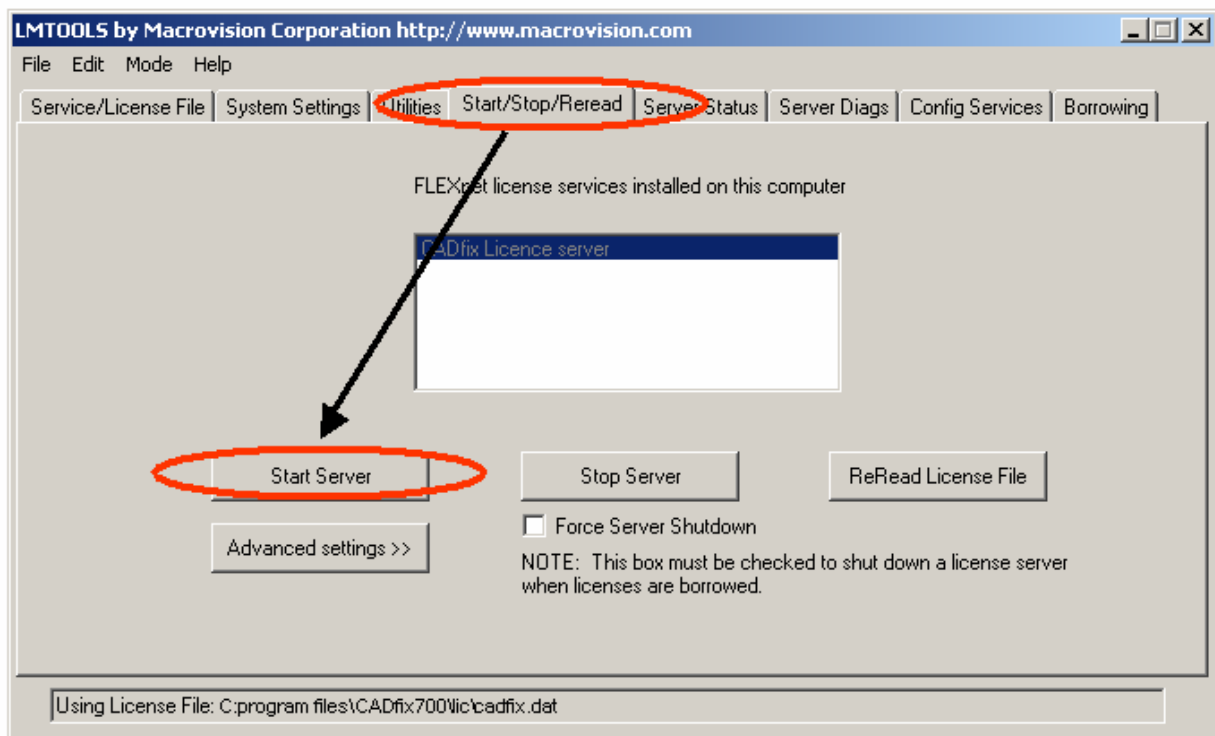


4. **Type** into the Service Name entry window to specify a name for the CADfix licence service; the recommended name is “CADfix Licence Server” – see over.
5. Select the “Browse” button to locate the licence server program from the CADfix installation. If you installed CADfix in the default location then you should find it in “C:\Program Files\CADfix 7.0\lic\lmgrd.exe”.
6. Select the “Browse” button to locate the licence file. The licence file should be installed in the “lic” directory of the CADfix installation. If you installed CADfix in the default location then you should find it in “C:\Program Files\CADfix 7.0\lic\cadfix.dat”.
7. Select the “Browse” button to locate the file to be used for logging the licence server messages. It is recommended that this file be placed in the “lic” folder of the CADfix installation. If you installed CADfix in the default location then you should call it “C:\Program Files\CADfix 7.0\lic\cadfix.log”.

8. Select the “Use Services” checkbox and the “Start Server at Power Up” checkbox then finally select “Save Service” to store the settings.



9. To start the server for the first time, select the “Start/Stop/Reread” tab, and then select the “Start Server” button. Wait about 30 seconds to allow server to start.



10. Once the server is up and running then you can exit from “Licence Tools”.

For a **floating** licence installation system managers can overcome the requirement to place a copy of the `cadfix.dat` file into every installation `lic` directory as follows:

1. The licence file on each client need only contain a `SERVER` line and a `USE_SERVER` line, and CADfix will contact the specified server machine for full licensing information, e.g.

```
SERVER mainland ANY 32768
USE_SERVER
```

2. Alternatively you can set a `CADFIX_KEY` environment variable on each client machine. To create a new environment variable on Windows XP open the Control Panel on the client machine. Then double click on the System icon. Select the Advanced Tab and click the Environment Variables button. Create a new variable with variable name `CADFIX_KEY` and variable value **port@server_name** e.g. `32768@mainland`. The `CADFIX_KEY` environment variable can point to; the full existing licence file in a central place somewhere on the network e.g. on the server, or a specified server machine, and optional port, e.g.

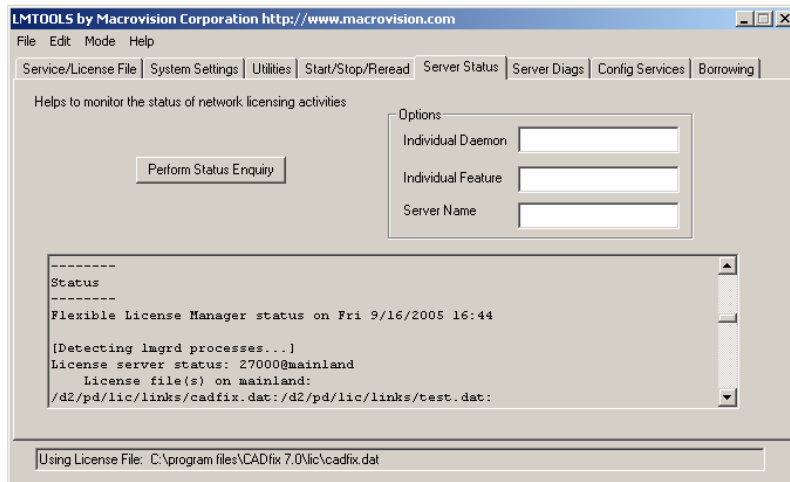
```
@mainland.fegs.co.uk      or
32768@myserver.here.there.com
```

Therefore there are 3 ways you can use FLEXlm™ in CADfix with the `CADFIX_KEY` variable.

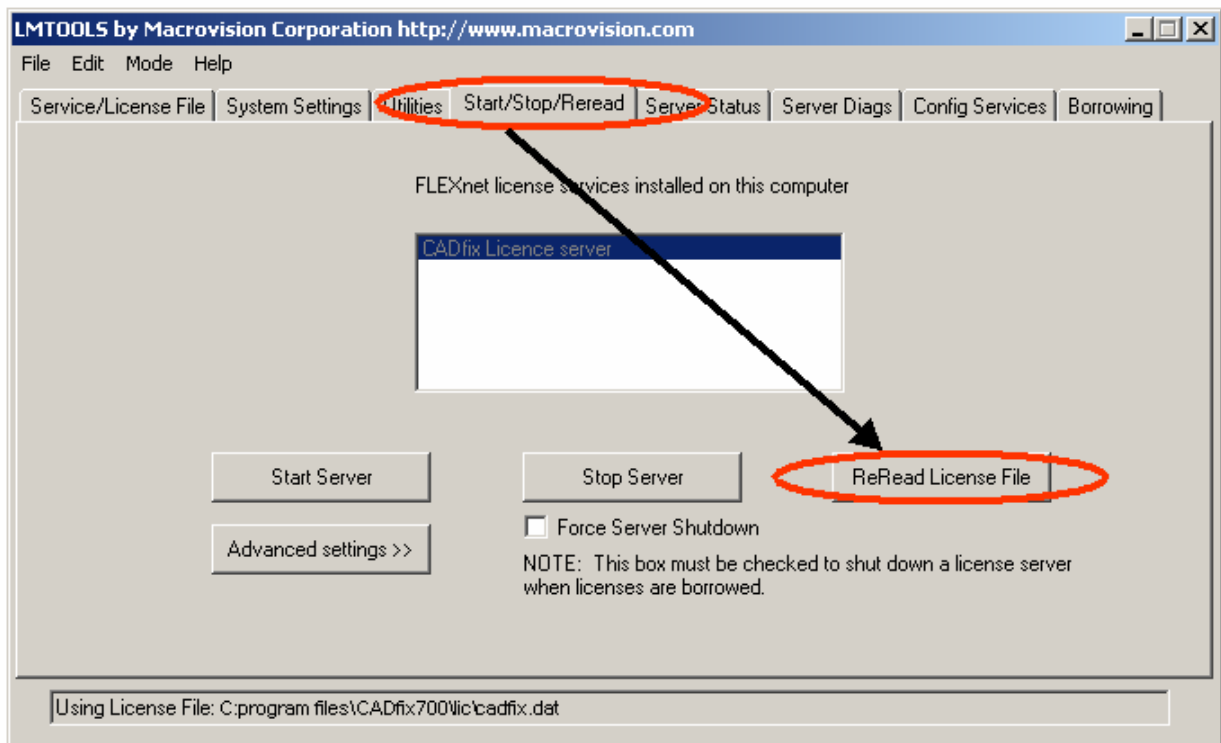
- If `CADFIX_KEY` points to a port number on a machine (a valid FLEXlm™ thing to do), e.g. `port@server`, then it will contact the licence server to get the key data it needs.
- If `CADFIX_KEY` points to a file containing just the `SERVER` and the special `USE_SERVER` lines, then it reads the server details and contacts the server in the same way as above.
- If `CADFIX_KEY` points to a normal licence key it reads the contents and uses it.

The above will only work if the "lmutil.exe" executable is in the `lic` folder, which should be the case for a standard CADfix installation.

1. For **node-locked** or **evaluation/demo** licence types place the `cadfix.dat` file in the `lic` directory and start using the program as no server is required for these licence types. The following instructions relate to setting up clients in a floating licence environment.
2. When CADfix has been installed on the new host platform within an existing floating licence system copy the licence file (`cadfix.dat`) to the `lic` directory of all machines that CADfix is installed on.
3. Select "Licence tools" from the CADfix 7.0 Start menu and confirm that the licence management system is running, enter the "Server Status" tab and then select "Perform Status Enquiry". After a short wait the server status should be reported in the text window.



4. If you are changing or updating your licence file you need to 'Reread' the licence server. A copy of the new licence file must be placed on all host platforms including the licence server. You will need to select the 'Start/Stop/Reread' tab and click "Reread Licence File" button.



1.3.4. Windows - Licence Manager Setup - FLEXlm™ Compatibility Note

At CADfix 7.0 the version of the FLEXlm™ licence management software from Macrovision Corporation has changed. The old and the new licence file types are not interchangeable. Unlike previous releases of CADfix with this version you cannot put the CADfix 7.0 key in the CADfix 6.0 lic directory.

Users who wish to run both CADfix 6.0 and CADfix 7.0 in the same environment or on the same platform will need to make the following changes to ensure compatibility:

Floating licence

A CADfix 7.0 licence will in the following circumstance enable you to run any version of CADfix up to and including version 7.0. You can remove the old licence server completely and still be able to run CADfix 6.0. This is the recommended way of having multiple versions of CADfix available. To do this: remove all the CADfix 6.0 related licensing from the licence servers, install the CADfix 7.0 related licensing from the CD onto the licence servers and install the new key and start the licence service.

On each client machine setup the environment variable `CADFIX_KEY` to point to the server using `port@server_name`. This means you do not have to copy the licence file to each client machine.

To create a new environment variable on Windows XP open the Control Panel on the client machine. Then double click on the System icon. Select the Advanced Tab and click the Environment Variables button. Create a new variable with variable name `CADFIX_KEY` and variable value `port@server_name` e.g. `32768@mainland`.

You can specify multiple licence servers in `CADFIX_KEY` using semi-colons as the separator.

You could also point to the server directly from the licence file as described in section 1.3.2, i.e. change the licence file so it just has the two lines:

```
SERVER <machine> <port>
USE_SERVER
```

Node-locked licence

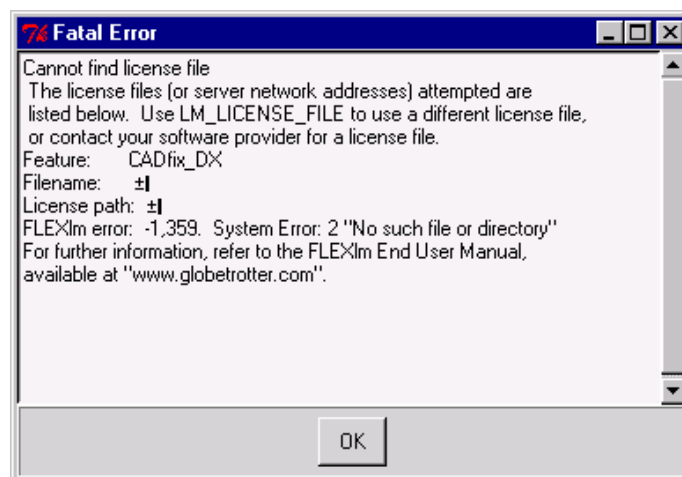
Extra features must be appended to the CADfix 6.0 licence file. In the CADfix 7.0 `lic` directory should be a text file called "`cadfix_append_toCF6.dat`". The contents of this file need to be appended to your CADfix 6.0 licence file. If the licence file already contains one or more of the feature lines they may be removed from the appended group.

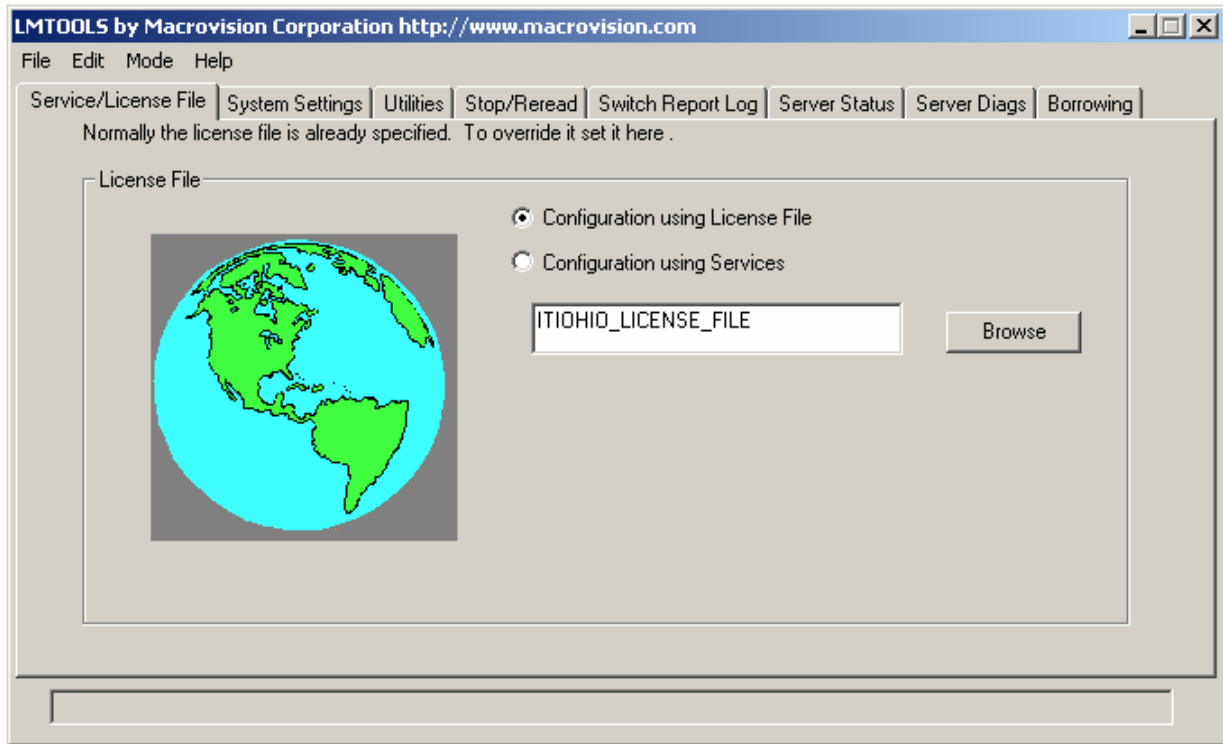
If there are any questions with the above please contact Support at TranscenData Europe for further advice.

1.3.5.	Windows - Licence Manager Setup - Troubleshooting
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If CADfix fails to start giving the message shown below even after a licence server has been found check the following:

- If the server was found by searching for a named computer then this usually means that the server does not have the correct CADfix licence that you require.
- If the server was found by specifying a licence file then this usually means that the server machine listed in the licence file is not running a FLEXlm™ server or is not reachable on your network.



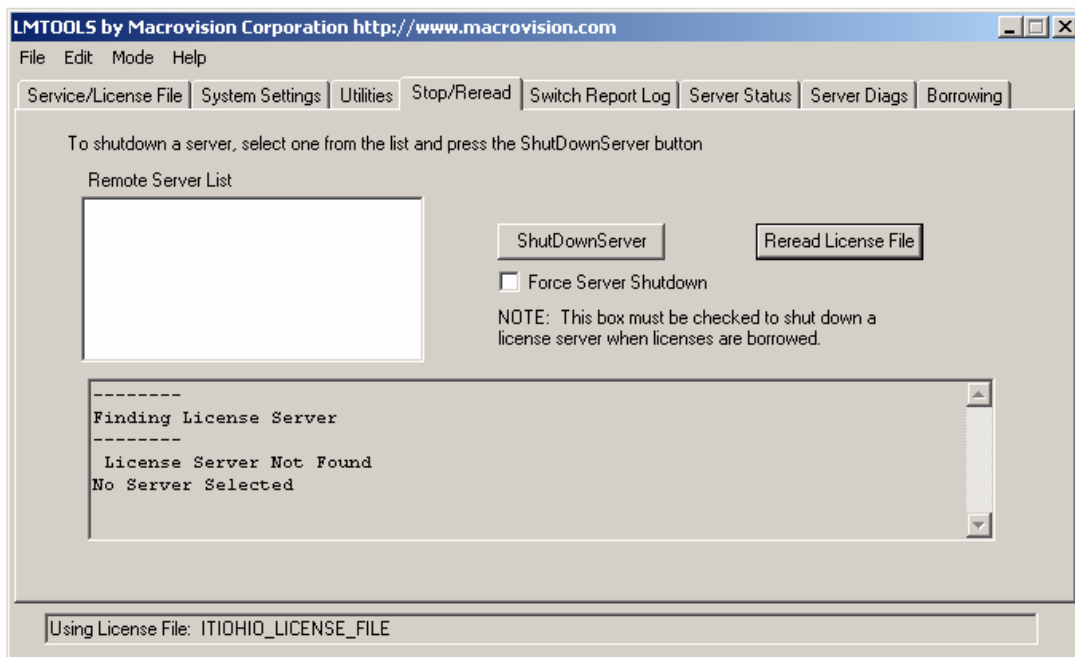


- Verify that the `ITIOHIO_LICENSE_FILE` environment variable has been set during the installation using the `Service/Licence File` tab on the `lmttools` utility.

If for example, due to version upgrade, you are issued with a new licence file you may need to copy the licence file to the `lic` directory on all machines CADfix is installed on (unless the arrangement described in section 1.3.2 has been used) and Reread the licence server.

If you are getting a message that indicates the wrong product or key is installed.

- Verify that the CADfix licence file matches the main option installed otherwise you will have to uninstall and reinstall the program. For instance the licence file must contain the feature `CADfix_DX` if the Data Exchange option has been installed.



If you get a CADfix error '**unable to determine correct starting mode**' it may mean that you have installed option type 2 after installing option 1 .

- Option 2 is 'CADfix licence manager only' and should NOT be installed on top off any of the other options. Options 1 also installs the licence manager. The solution to this problem is to stop the licence services, uninstall CADfix and reinstall only the option you require.

If you are installing the floating licence manager on a server system and it refuses to start this may be due to a 'port' conflict with other products also using FLEXlm™.

- A solution would be to give a specific port number in the server line of the CADfix licence file instead of relying on the default. You may use any standard editor to open the `cadfix.dat` file and insert onto the end of the SERVER line the number 32728 e.g.:

```
#CADfix# note3:  
SERVER <hostname> <machineID> 32728  
VENDOR itiohio
```

- Another good diagnostic is to check the FLEXlm™ log file. Make sure the service has a log file defined, as that should contain a message explaining what is wrong. Try specifying a port number and if that still doesn't work, then check and see if this server has some kind of firewall protection, which may be blocking the ports FLEXlm™ is trying to use. At this point you may need to make sure port 32728 was opened for the internal network to see.
- When using a "redundant server" key you must use a port number on the server line. A "redundant server" key has up to 3 server lines specifying 3 different servers in priority order. When the first or primary server fails for whatever reason the licence will be transferred to the second server specified in the sequence.

If installed correctly as defined in this guide, the software can be run from the 'Start' button on the 'Task' bar.

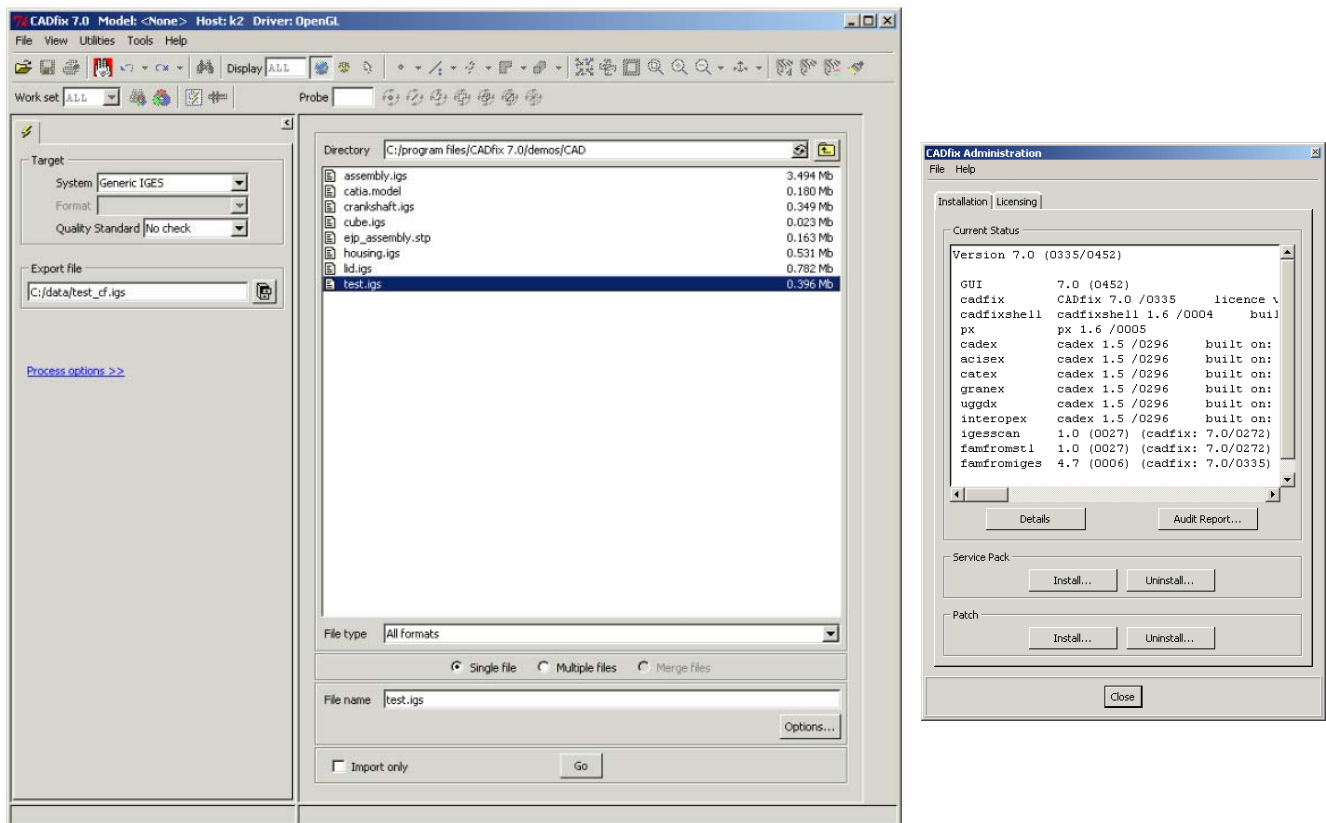
Select the 'Start' button, followed by 'Programs' and 'CADfix 7.0' to run CADfix.

File type association is now created during installation. The **.fbm** files will now show the CADfix icon and can be double-clicked to open in CADfix.

If a shortcut to `C:\Program Files\CADfix 7.0\bin\runcadf.exe` exists on your desktop any file that CADfix can read (**.fbm**, IGES, STEP, etc.) can be dragged-and-dropped onto the shortcut.

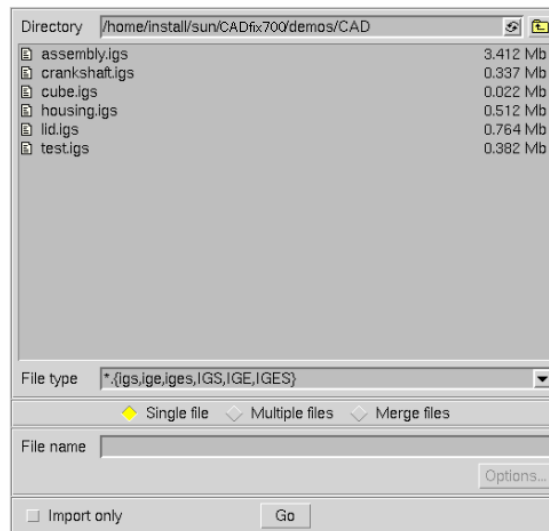
Users must obtain a licence file named `cadfix.dat`, from TranscenData, and place it in the `lic` directory. For a node-locked licence you must supply the **physical address** as shown in **Appendix A.1**. For a floating licence you must supply the **physical address**, the **network name** and **IP address** of the server machine.

Start CADfix as described in **section 1.4** above. If the licence file is working correctly you should be presented with CADfix as shown above.

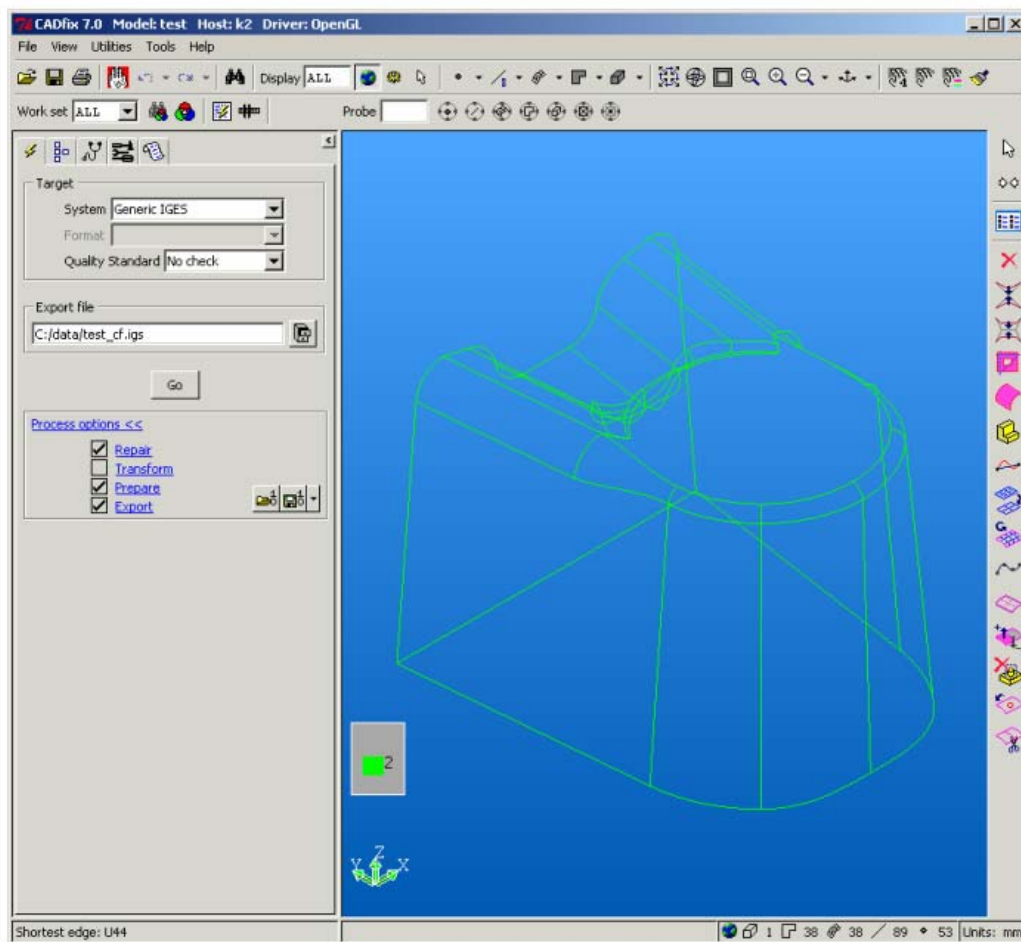


Under the 'Help' menu select 'CADfix Administration' and click on the 'Details' button to confirm all the products in the above right image are installed.

Ensure that the File type filter is set to identify IGES file as shown above. Change the Directory to **C:\program files\CADfix 7.0\demos\CAD** and you should now be presented with a list of IGES files as shown below:



Pick the file 'test.igs' so that its name is echoed in the 'File name' field as shown above. Click on 'Go' and after the data has been processed you should be presented with the graphics window shown below:



Using the 'File' drop down menu select '**Exit CADfix**' and close the program down.

CADfix will have left a number of files in the **C:\program files\CADfix 7.0\demo\CAD** directory. Users are recommended to use the 'File' >> 'Preferences' and 'Directory' tab to select their working directory if the default of Use model directory is not required ensuring "write" access before any further processing within CADfix.

CADfix supports a Japanese language version of the user interface. If the Japanese language version is required then select this option during the installation process.

The language setting can also be specified by defining an environment variable called **CADFIX_LANGUAGE**. The value of this environment variable must be set to: Japanese (the case is important).

The Japanese language setup is controlled by a configuration file that can be found in the CADfix installation.

They are stored in **C:\Program Files\CADfix 7.0\tcl\language**. (change 'C:\Program Files' to where ever you installed CADfix). The configuration file is call **Japanese.lang**. This file allows the user to change the font used. The default Japanese font is "MS UI Gothic".

TCP/IP

TCP/IP must be installed and running on your machine to enable CADfix to run. If you have the software on your system but it is not running then it can be started by selecting the following from the Task bar:

Control Panel, Network, Protocols, and then Add the TCP/IP Protocol

Ordinarily you must have an Ethernet or networking card installed on your PC to run CADfix. However if TCP/IP is installed but there is no network card it is possible to configure CADfix to run by using the **MS Loopback Adaptor** in the Network setup.

Windows 2000

For Windows 2000 machines going off the network you will need to install the **NETBEUI** network protocol otherwise the licensing system will not permit you to run CADfix.

On-line HELP

To access the CADfix on-line help documentation select **Help >> On-line Help...** from the pull down menu of the main CADfix window.

The CADfix on-line HELP system is built using HTML files and when first activated the program will use the Microsoft Internet Explorer® browser. If the user wishes to use a different browser this may be changed under the File menu using the Preferences option.

Home Directory Setting

CADfix makes use of the users HOME directory and needs this environment variable to be set for it to start up correctly. Normally the users CADfix configuration file (.CADfix ver , where ver = version of CADfix e.g. .CADfix700) is placed in the home directory. If you encounter problems you should check, and set if necessary, the home directory for the users by selecting 'Administrative Tools' - 'User Manager' - 'User Properties' - 'User Environment Profiles'. When HOME is not set CADfix will use the Windows environment variables HOMEDRIVE and HOMEPATH to identify the users home directory. HOMEDRIVE and HOMEPATH cannot be changed by the user.

Site Configurations

CADfix Administrators may wish to organise a central resource for various configurations to service a site rather than having distributed settings amongst individual users. When initialised CADfix will look for configuration settings in the users HOME directory and at the place identified by the environment variable CADFIXSITECONFIG.

The CADFIXSITECONFIG location would contain the file CADfix700 (**Note:** without the full stop in front of the name) and a directory CADfix.config (**Note:** again without the full stop in front of the name).

Generally available CADfix configurations would be placed into the site CADfix700 file accessible for the whole site. Also generally available functions would be available to the whole site under the directory CADfix.config. Such as a company wide specific quality-testing standard in the CADfix.config/quality/ directory <name>.cqs file.

Where there is a conflict between the configurations in the users HOME directory and the site directory the users home settings will take precedent.

Writing of temporary files

The location of temporary files differs between UNIX and Windows. In both cases it will move onto the next location if it finds it can't write to the previous one(s):

Windows:

- 1st: environment variable TEMP
- 2nd: environment variable HOME
- 3rd: C:\TEMP
- 4th: present working directory

So you can control the location of the current temp files by changing the 1st environment variable setting.

Filenames and Directory path

Users may experience problems opening files with spaces or dots in the filename.

Database compatibility

CADfix binary database files (i.e. file extension .fbm and .fbb) are not compatible with either UNIX or Linux operating systems. Users wishing to transfer model/files between these different machine types are advised to use the CADfix Wizard Export GDX or the CAG format.

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2.

UNIX Installations

Sections 2.1. to 2.5. give instructions for installation, licensing and execution of CADfix for the UNIX environment. CADfix 7.0 has been developed for the following operating system levels:

Machine	Operating System	Level
SUN	Solaris	8
SGI	IRIX	6.5.3 (mips3)
IBM	AIX	4.3.3
HP	HP-UX	11.0 PA2.0
LINUX	RED HAT	9.0
	SuSE	9.0

Please identify which of the three licence types outlined in section 2.3 you will be using. For an **evaluation/demo** licence there is no server required, so all instructions relating to the licence server may be ignored.

Please ensure that any previous installation has been completely removed before you re-install CADfix.

Before running through the UNIX installation procedure determine whether you want to install the Licence Manager only (not relevant for **evaluation/demo** licence type) or both CADfix and the Licence Manager. CADfix licence management operates from a licence server machine that is designated to perform the administrative tasks of controlling the CADfix licence. The Licence Server machine could be a machine actually running CADfix or another machine on a network that communicates using TCP/IP as the network protocol. The choice of the Licence Server is critical because if this machine is unavailable for any reason no other installation of CADfix on the network will work.

Following the instructions in section 2.2 will install the Licence Manager only or both the chosen CADfix product and the Licence Manager:

- Follow steps 1 to 11 skipping step 9 for installing the Licence Manager only, choosing the "CADfix Licence Manager only" at step 6.
- Follow steps 1 to 9 for installing both the CADfix product and the Licence Manager choosing either the "CADfix Data Exchange" or "CADfix CAE Modeller" product at step 6.

Having installed the software successfully on your system you should refer to the UNIX platform configuration notes detailed in section 2.6. as these include system specific details and requirements that affect the operation of CADfix.

2.1.

UNIX - Disk Space Requirements

The hard disk space required for a CADfix installation is dependent on the machine and product purchased. Some approximate figures are given below:

Machine	Data Exchange
SUN	300MB
SGI	250MB
IBM	250MB
HP	250MB
LINUX	250MB

If you are installing the **Licence Manager only** follow the installation instructions below choosing option 2 at step 7 and then repeat the process for each platform.

To install from CDROM follow the steps given below. Please note that the **C-shell environment** should be used and that in the following text ‘%’ denotes the system prompt.

You must NOT install the program as ROOT.

1. Load the CADfix CD into your CDROM drive
2. Make sure that the CDROM drive is mounted as shown below for your machine.

Platform	Procedure
SUN at SOLARIS 2.8/2.9:	mount -F hsfs -o ro /dev/<device> /cdrom where <device> is the CDROM device on your system. If vold is running, the CDROM is mounted automatically.
SGI at IRIX 6.5.3:	mount -rt is09660 /dev/dsk/<device> /cdrom where <device> is the CDROM device on your system. If objectserver and mediad are running, the CDROM will be mounted automatically.
IBM RS6000 at AIX 4.3.3:	mount -rv cdrfs /dev/<device> /cdrom where <device> is the CDROM device on your system
HP9000 at HP-UX 11.0 PA2.0:	mount -o cdcase /dev/<device> /cdrom where <device> is the CDROM device on your system. If the above cdcase option is not used all names will be in upper case.
LINUX at Red Hat 9.0/SuSE 9.0	mount -o exec /cdrom you must be ROOT to mount the CDROM device in this way.

3. Move to the CDROM directory and the ‘unix’ subdirectory, (NOTE: ‘UNIX’ may be in uppercase depending on how your device has been mounted. If so you may wish to consider using lower case ‘symbolic links’ from you hard drive for all the contents of the UNIX directory – see your systems administrator) e.g.:

```
% cd /<CDROM>/unix (where <CDROM> is where your CDROM drive is mounted)
```

Example of Typical Installation CD contents

```
% /<CDROM>/unix > ls -l
total 822553
-r-xr-xr-x 1 opt sys 0 Feb 18 16:51 noCAE*
drwxr-xr-x 1 opt sys 512 Feb 18 16:51 bin/
-r-xr-xr-x 1 opt sys 27434727 Feb 18 16:51 cmn.tgz*
-r-xr-xr-x 1 opt sys 111959304 Feb 18 16:51 hp.tgz*
-r-xr-xr-x 1 opt sys 54188562 Feb 18 16:52 ibm.tgz*
-r-xr-xr-x 1 opt sys 58416 Feb 18 13:21 install.sh*
-r-xr-xr-x 1 opt sys 52293229 Feb 18 16:55 linux.tgz*
-r-xr-xr-x 1 opt sys 60719104 Feb 18 16:55 sq.tgz*
-r-xr-xr-x 1 opt sys 101920450 Feb 18 16:53 sol.tgz*
```

4. Execute the installation script on the CDROM in the ‘unix’ sub directory, e.g.:

```
% ./install.sh
(or ./INSTALL.SH depending on how your device has been mounted
on LINUX if you do not execute permission from the CD use ‘sh ./install.sh’)
The install script will now run and ask a series of questions.
```

The UNIX versions of CADfix are listed and you should identify the one required:

```
CADfix 7.0 Installation - Which Platform
1.  HP9000
2.  IBM RS6000 (AIX 4.3)
3.  SGI
4.  SUN Solaris
5.  LINUX
x.  Abort installation
Which platform do you want to install (1 - 5)?
4
```

5. Next identify the target installation directory for the software. Ensure you have write privileges as an attempt will be made to create a directory if one does not exist:

```
CADfix 7.0 Installation - Install Where
CADfix will be installed into a new sub-directory called cadfix700
Which directory do you want to create this in ?
(Press RETURN to abort installation.)
/opt/
```

6. Next identify the CADfix product you wish to install. If unsure please contact your supplier. If you are installing the **Licence Manager** only select option 2 and skip Step 10 below.

```
CADfix 7.0 Installation - Which Product
1.  CADfix Data Exchange
2.  CADfix Licence Manager only
Note: The CADfix licence manager is included in all options.
      Option 2 should only be installed where a floating CADfix
      licence is to be managed by a machine not running CADfix.
x.  Abort installation
Which CADfix product do you want to install (1 - 2) ?
1
```

7. Select the language.

```
CADfix 7.0 Installation - Which Language
Please select a language for the CADfix user interface and on-line
documentation.
1.  English
2.  Japanese
x.  Abort installation
Which language do you want to install (1 - 2) [1] ?
1
```

8. After confirming the installation details the products are now extracted automatically into the directory location you requested headed by the 'cadfix ver ' directory (where ver is the CADfix version number, e.g. 'cadfix700').

```
CADfix 7.0 Installation - Installing Products

Platform: SUN Solaris
Location: /opt/cadfix700
Product: CADfix Data Exchange
Language: English

Continue with installation (y/n)? y

Identifying files to install...

Extracting platform independent files...

Extracting platform dependent files...

Installation completed.

Press RETURN to continue:
```

9. At the end of the installation you are requested to run a `cadfix_setups` script to set up the product environment variables. It is suggested that this command be added to the system login or individual user login files.

```
CADfix 7.0 Installation - Installation Complete

Before starting cadfix you must source the cadfix setups file, e.g.

    source /opt/cadfix setups

You should also add the above line to the system login or each user login.

* SPECIAL NOTE *
CADfix 7.0 uses a newer version of the FLEXlm licence manager.
If earlier releases of CADfix will also be used, then please read the
FLEXlm compatibility note in the installation guide.
* SPECIAL NOTE*

Before starting CADfix please ensure that the Licence Manager has
been setup according to the CADfix Installation Guide.
```

See section 2.3.4 for the *SPECIAL NOTE*

10. At the end of the **Licence Manager** installation you are requested to run a `cadfix_setups` script to set up the product environment variables. Where it is necessary to start the Licence Manager; run `cadfixadmin` and refer to section 2.3.

```
CADfix 7.0 Installation - Installation Complete

Before starting the licence manager you must source the cadfix setups
file, e.g.

    source /opt/cadfix setups

To start the licence manager type:

    cadfixadmin

Please refer to the installation document for instructions on how to use
the CADfix licence manager.
```

11. Before CADfix will run for a server type licence (not relevant for **evaluation/demo** licence types) the FLEXlm™ Licence Manager must be set up. Please go to section 2.3 in this manual for further information on the Licence Manager.

For a full listing of the files extracted inspect the files; `.tar_dep.log` and `.tar_cmn.log` found in the installed directory.

CADfix uses FLEXlm™ from Macrovision Corporation, as its licence management software. The CADfix installation procedure sets the \$FEGS_TOP environment variable to point the installed directory. As part of every installation the licence management software will be installed in the lic directory e.g.

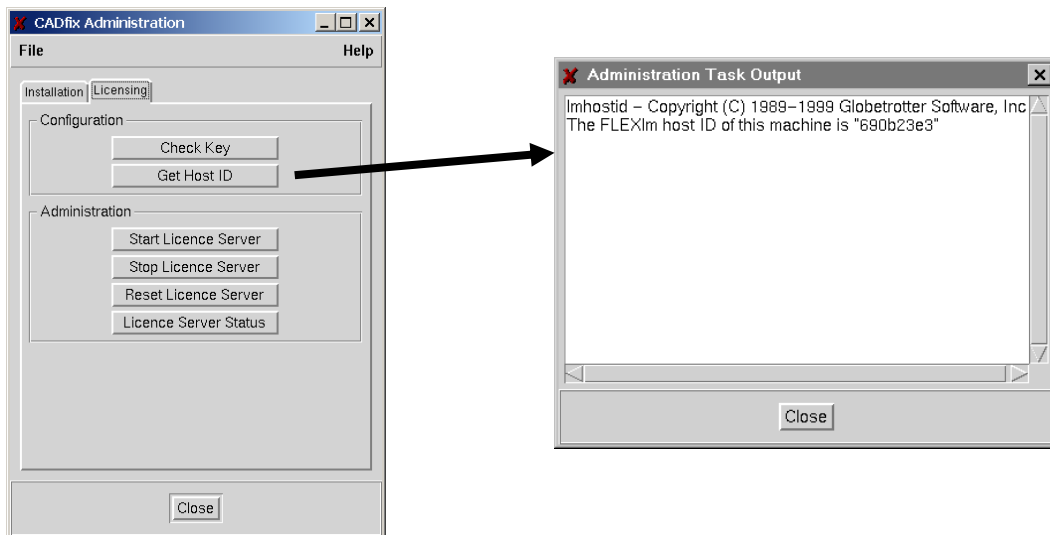
```
$FEGS_TOP/cadfix700/lic/
```

A full explanation of the licence management system may be found in the HTML file 'FLEXlm.htm' delivered as part of the CADfix installation and found within the lic directory.

Users must obtain a licence file named cadfix.dat, from TranscenData, and place it in the lic directory.

For generation of the licence file the user must be logged onto the proposed server or node locked machine (not relevant for **evaluation/demo** licence type – see below). Run the cadfixadmin GUI to obtain the system ID. Click Get Host ID and send the host ID given to TranscenData along with the machines network hostname (uname -n). For instance “690b23e3” would be the system ID given by the example below.

```
% cadfixadmin
```

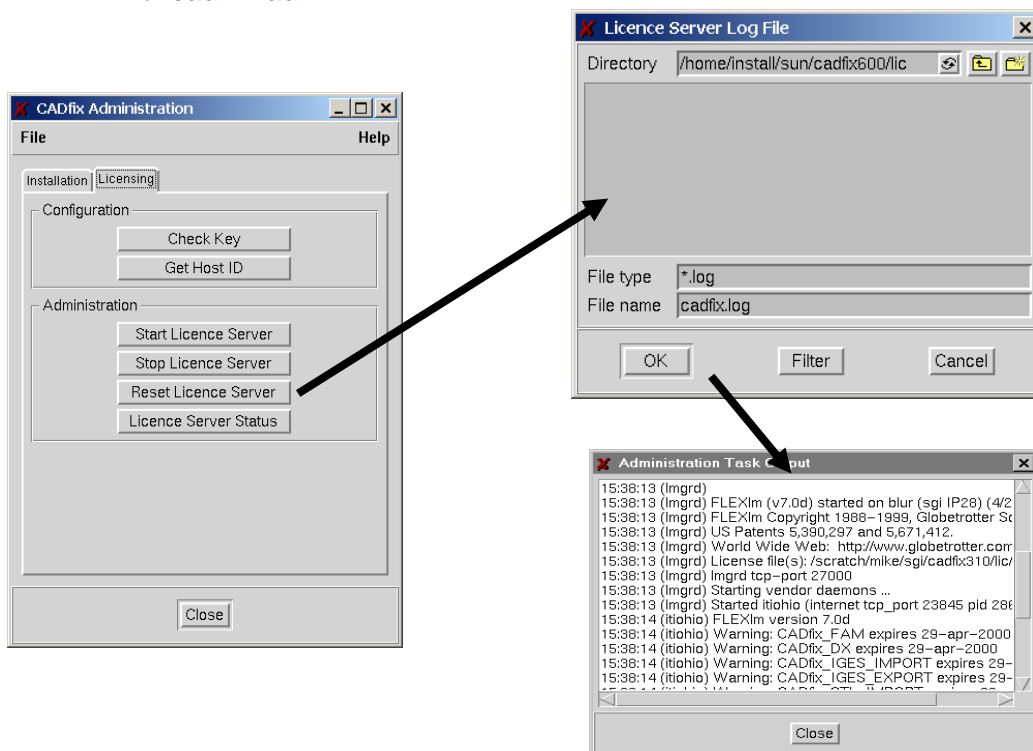


Before activation of the CADfix licence management system the user must clarify which of the three types of licence is being used i.e. a **floating (concurrent)** licence, a **node locked** licence or an **evaluation** licence:

- **floating (concurrent)** licence server system means anyone on the network can use the licensed software via TCP/IP, up to the limit specified in the licence file.
- **node locked** licence means the licensed software can only be used on one machine (node) and the licence server needs to be running as only 2 simultaneous users per machine are permitted.
- **evaluation/demo** licence is not node locked but it is time limited, so there is no server required.

1. After completing the installation process source the `cadfix_setups` file.
2. Once you have received a `cadfix.dat` licence file from TranscenData place it in the `lic` directory.
3. If you have an **evaluation/demo** licence you may start to run CADfix – see section 2.4. Please ignore the licence server installation instructions below for **evaluation** types.
4. To Start/Stop/Reset and check the Licence Server Status use the `cadfixadmin` GUI.
5. On first selecting “Start Licence Server” you will be asked to identify a directory for the licence server log file `cadfix.log`. We recommend that the log file be placed in the `lic` directory.

```
% cadfixadmin
```



6. Once the licence management system has been started you may check the status at any time using the “Licence Server Status” button.
7. You must follow the procedure set out in section 2.2 for installing the products purchased on each host platform. For each machine on which CADfix is installed a copy of the licence file **must** be placed in the `lic` directory, unless the procedure outlined in section 2.3.2. below is followed.

For a **floating** licence installation system managers can overcome the requirement to place a copy of the `cadfix.dat` file into every installation `lic` directory as follows:

1. The licence file on each client need only contain just a `SERVER` line and a `USE_SERVER` line, and CADfix will contact the specified server machine for full licensing information, e.g.

```
SERVER mainland ANY 32768
USE_SERVER
```

2. Alternatively you can set a `CADFIX_KEY` environment variable on each client machine. The

CADFIX_KEY environment variable can point to; the full existing licence file in a central place somewhere on the network e.g. on the server, or a specified server machine, and optional port:

```
setenv CADFIX_KEY @mainland.fegs.co.uk      or
setenv CADFIX_KEY 32768@myserver.here.there.com
```

Therefore there are 3 ways you can use FLEXlm™ in CADfix with the CADFIX_KEY variable.

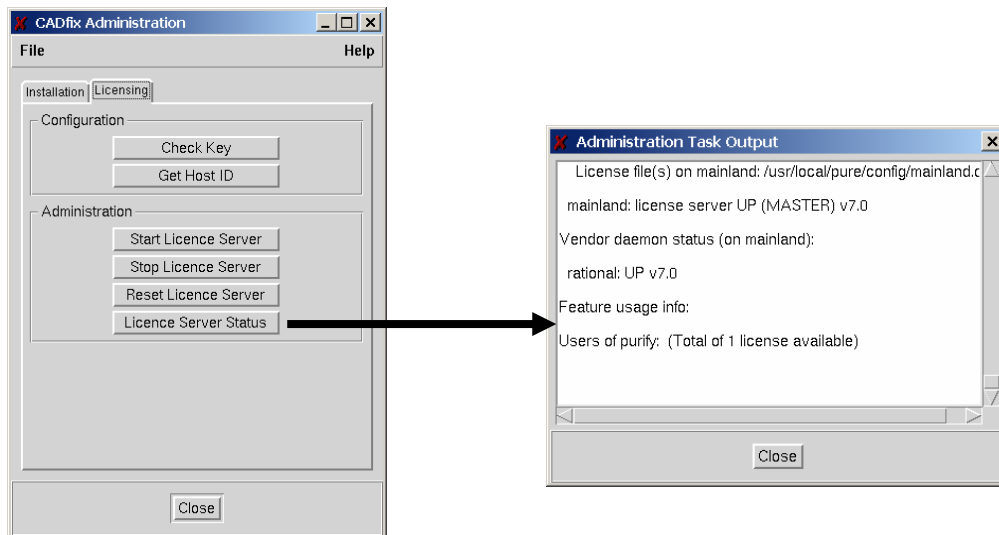
- If CADFIX_KEY points to a port number on a machine (a valid FLEXlm™ thing to do), e.g port@server, then it will contact the licence server to get the key data it needs.
- If CADFIX_KEY points to a file containing just the SERVER and the special USE_SERVER lines, then it reads the server details and contacts the server in the same way as above.
- If CADFIX_KEY points to a normal licence key it reads the contents and uses it.

The above will only work if the "lmutil" executable is in the /lic folder, which should be the case for a standard CADfix installation.

2.3.3. UNIX - Licence Manager Setup - Existing Licence

1. For **evaluation/demo** licence types place the `cadfix.dat` file in the `lic` directory and start using the program as no server is required for these licence types. Please ignore all instruction below, which relates to **floating and node locked** licence server installations.
2. Once CADfix has been installed on the new host platform within an existing floating licence system obtain a copy of the licence file (`cadfix.dat`) from the licence server and place it in the `lic` directory.
3. Source the `cadfix_setups` file.
4. Use the `cadfixadmin` GUI to confirm that the licence management system is running, enter the following and select the "Licence Server Status" option:

```
% cadfixadmin
```



5. If you are changing or updating your licence file you need to 'Reset' the licence server. A copy of the new licence file must be placed on all host platforms including the licence server. You will need to 'reset' the licence server using the `cadfixadmin` GUI.

At CADfix 7.0 the version of the FLEXlm™ licence management software from Macrovision Corporation has changed. The old and the new licence file types are not interchangeable. Unlike previous releases of CADfix with this version you cannot put the CADfix 7.0 key in the CADfix 6.0 `lic` directory.

Users who wish to run both CADfix 6.0 and CADfix 7.0 in the same environment or on the same platform will need to make the following changes to ensure compatibility:

Floating licence

A CADfix 7.0 licence will in the following circumstance enable you to run any version of CADfix up to and including version 7.0. You can remove the old licence server completely and still be able to run CADfix 6.0. This is the recommended way of having multiple versions of CADfix available. To do this: remove all the CADfix 6.0 related licensing from the licence servers, install the CADfix 7.0 related licensing from the CD onto the licence servers and install the new key and start the licence service.

On each client machine setup the environment variable `CADFIX_KEY` to point to the server using `port@server_name` (e.g. `27000@mainland`). This means you do not have to copy the licence file to each client machine. On UNIX using a CSHEL you can create an environment variable by typing:

```
setenv CADFIX_KEY port@server_name
```

You could also point to the server directly from the licence file as described in section 2.3.2, i.e. change the licence file so it just has the two lines:

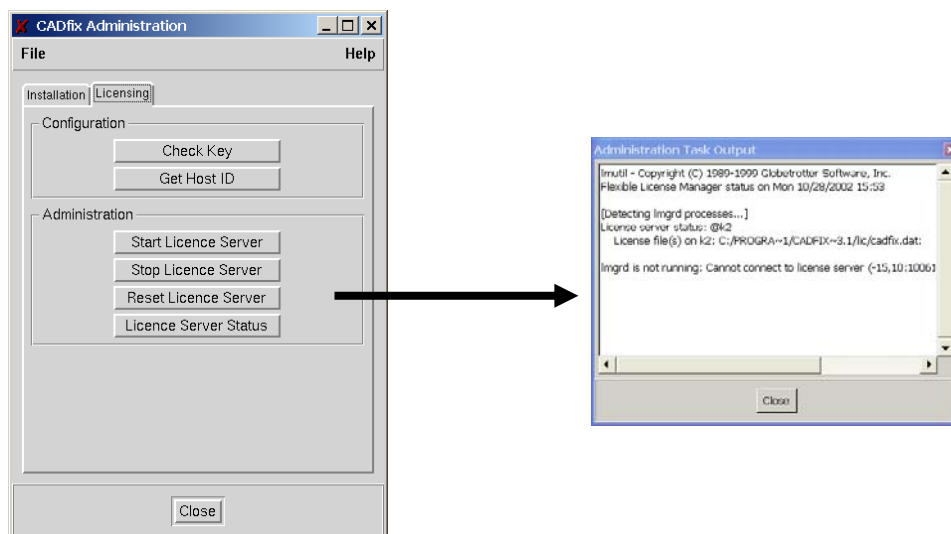
```
SERVER <machine> <port>
USE_SERVER
```

Node-locked licence

Extra features must be appended to the CADfix 6.0 licence file. In the CADfix 7.0 `lic` directory should be a text file called "`cadfix_append_toCF6.dat`". The contents of this file need to be appended to your CADfix 6.0 licence file. If the licence file already contains one or more of the feature lines they may be removed from the appended group.

If there are any questions with the above please contact Support at TranscenData Europe for further advice.

If CADfix fails to start and gives the message below for "Licence Server Status" after the floating licence file has been placed in the `lic` directory check the following:



- Does the server have the correct CADfix licence that you require?

- Is the server machine listed in the licence file reachable on your network?

If the FLEXlm™ routines are unable to make a TCP/IP connection to the server and port specified in the licence file the possible reasons for this are:

- 1) The wrong licence file is being referenced by the application program;
 - 2) The server machine specified in the licence file is unreachable;
 - 3) The `itiohio` vendor daemon specified in the licence file is not running;
 - 4) The hostname in the licence file is not recognized by the system;
 - 5) The network between the client machine and the server machine is down;
 - 6) TCP is not running on your machine.
- Try removing the file `.flexlmrc` from the users home directory and start again.
 - Verify that the application is using the proper licence file. The environment variable `$CADFIX_KEY` (as defined in the `cadfix_setups` file) should point to the licence file.
 - Verify that specified server machine is up and reachable by executing another command that uses TCP/IP, such as `ping`, from the client to the server.
 - Verify that the `itiohio` vendor daemon is running (you can use `"ps -ef |grep itiohio"` on the server itself to look for it).
 - Examine the licence log file `cadfix.log`, which should be located in the `lic` directory, to see if any problems are reported, particularly messages indicating that the vendor daemon has quit.
 - Check "Licence Server Status" on the `cadfixadmin` GUI from the server machine to verify that the vendor daemon is alive.
 - Check "Licence Server Status" on the `cadfixadmin` GUI from the client machine to verify the connection from client to vendor daemon across the network.
 - Users should **NOT** modify the `cadfix.dat` licence file. Any attempt to do so may result in the following error message, generated by the licence manager, when CADfix is started:

```
bad code or inconsistent encryption code
```

If you are installing the floating licence manager on a server system and it refuses to start this may be due to a 'port' conflict with other products also using FLEXlm™.

- A solution would be to give a specific port number in the server line of the CADfix licence file instead of relying on the default. You may use any standard editor to open the `cadfix.dat` file and insert onto the end of the `SERVER` line the number 32728 e.g.:

```
#CADfix# note3:
SERVER <hostname> <machineID> 32728
VENDOR itiohio
```

- Another good diagnostic is to check the FLEXlm™ log file. Make sure the service has a log file defined, as that should contain a message explaining what is wrong. Try specifying a port number and if that still doesn't work, then check and see if this server has some kind of firewall protection, which may be blocking the ports FLEXlm™ is trying to use. At this point you may need to make sure port 32728 was opened for the internal network to see.
- When using a "redundant server" key you must use a port number on the server line. A "redundant server" key has up to 3 server lines specifying 3 different servers in priority order. When the first or primary server fails for whatever reason the licence will be transferred to the second server specified in the sequence.

The following information for ensuring that the licence is always started at re-boot was taken from the FLEXlm™ reference material. If any further information is required please contact Transcendata.

On UNIX, edit the appropriate boot script, which may be `/etc/rc.boot`, `/etc/rc.local`, `/etc/rc2.d/Sxxx`, `/sbin/rc2.d/Sxxxx`, etc.

Remember that these scripts are run in `/bin/sh`, so do not use the `cs`h “>&” redirection syntax. Each UNIX operating system can have some quirks in doing this, but the following script has been successfully tested for HP9000 series 700 (HP700) systems. See the notes following for a full explanation.

```
/bin/su daniel -c `echo starting lmgrd > \
    /home/flexlm/v5.12/hp700_u9/boot.log`
/bin/nohup /bin/su daniel -c `umask 022; \
    /home/flexlm/v5.12/hp700_u9/lmgrd -c \
    /home/flexlm/v5.12/hp700_u9/licence.dat >> \
    /home/flexlm/v5.12/hp700_u9/boot.log`
/bin/su daniel -c `echo sleep 5 >> \
    /home/flexlm/v5.12/hp700_u9/boot.log`
/bin/sleep 5

/bin/su daniel -c `echo lmutil lmdiag >>\
    /home/flexlm/v5.12/hp700_u9/boot.log`
/bin/su daniel -c `/home/flexlm/v5.12/hp700_u9/lmutil lmdiag -n -c\
    /home/flexlm/v5.12/hp700_u9/licence.dat >> \
    /home/flexlm/v5.12/hp700_u9/boot.log`
/bin/su daniel -c `echo exiting >>\
    /home/flexlm/v5.12/hp700_u9/boot.log`
```

Please note the following about how this script was written:

- All paths are specified in full, since no paths can be assumed at boot time.
- Since no paths are assumed, the `itio` vendor daemon must be in the same directory as `lmgrd`.
- The “su” command is used to run `lmgrd` as a non-root user, “daniel”. We recommend that `lmgrd` not be run as root, since it can be a security risk to run any program that does not require root permissions, and `lmgrd` does not require root permissions.
- Daniel has a `cs`h login, so all commands executed as `daniel` must be in `cs`h syntax. All commands not executed as `daniel` must be in `/bin/sh` syntax, since that’s what’s used by the boot scripts.
- The use of “nohup” and “sleep” are required on some operating systems, notably HP-UX UNIX, for obscure technical reasons. These are not needed on Solaris and some other operating systems, but are safe to use on all.
- `lmdiag` is used as a diagnostic tool to verify that the server is running and serving licences.

Note: On IBM RS6000 systems, `/etc/rc` cannot be used, because TCP/IP is not installed when this script is run. Instead, `/etc/inittab` must be used. Add a line like this to `/etc/inittab` after the lines which start networking:

```
rclocal:2:wait:/etc/rc.local > /dev/console 2>&1
```

Having completed the installation process and sourced the `cadfix_setups` file, CADfix can be run by simply typing the name of the program at the system prompt, for example:

```
% cadfix
```

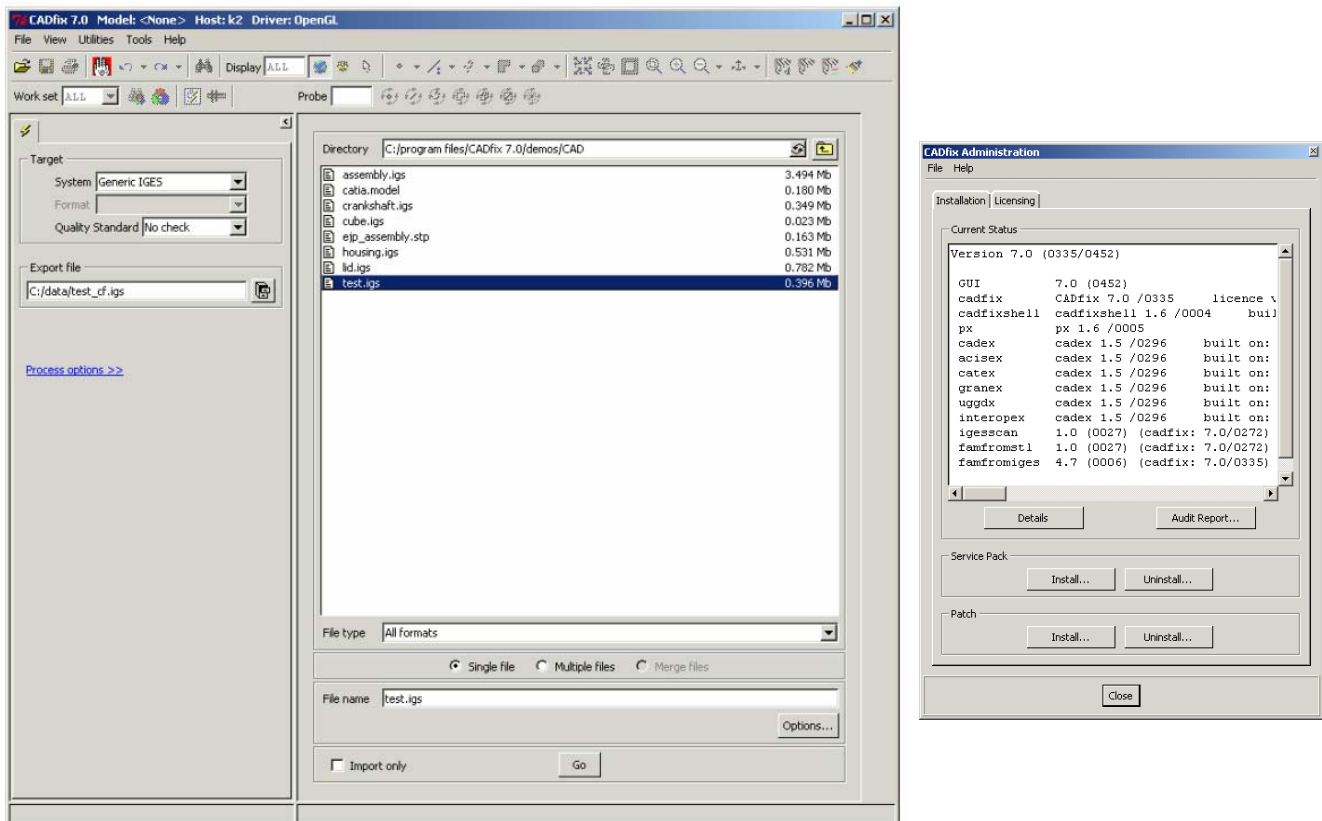
To access the CADfix on-line help documentation select **Help >> On-line Help...** from the pull down menu in the upper right hand corner of the main CADfix window.

The CADfix on-line HELP system is built using HTML files and when first activated the program will attempt to search for a Netscape® browser. If the program is unable to find a browser the user will be prompted to search for one. On failing to locate a HTML browser CADfix will revert to its own built-in browser.

Users must obtain a licence file named `cadfix.dat`, from TranscenData, and place it in the `lic` directory. For a node-locked licence you must supply the **physical address** as shown in **Appendix A**. For a floating licence you must supply the **physical address**, the **network name** and **IP address** of the server machine.

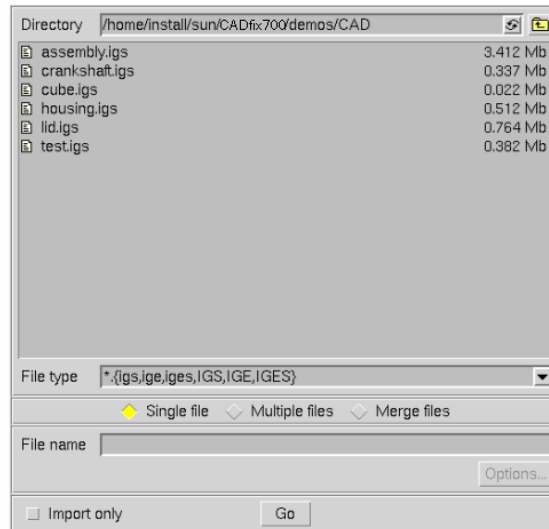
Start CADfix as described in **section 2.4** above. If the licence file is working correctly you should be presented with the CADfix window as shown below. The working directory will be set to the launch directory by default e.g. `/scratch/mike` below.

Under the 'Help' menu select 'CADfix Administration' and click on the 'Details' button to confirm

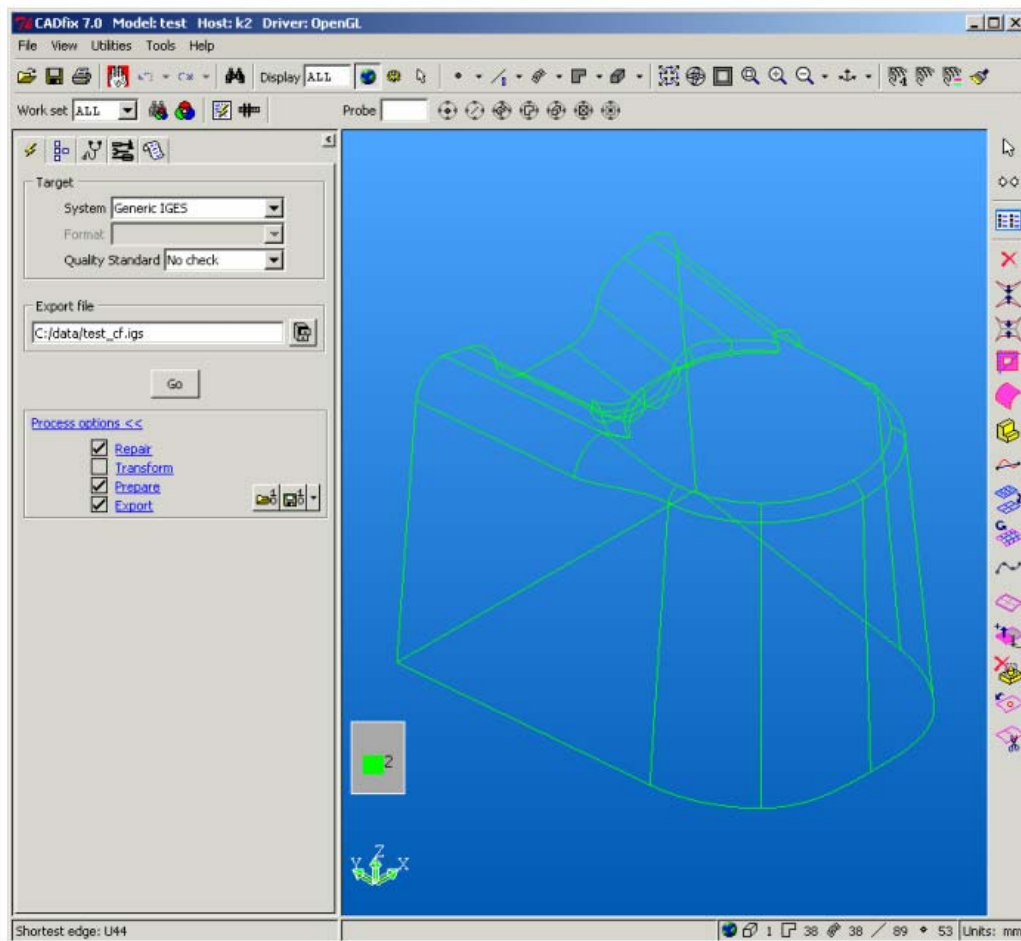


all the products in the image below right are installed.

Ensure that the 'File type' filter is set to identify IGES file as shown above. Change the Directory to `<path>/cadfix700/demo/CAD` and you should now be presented with a list of IGES files as shown below:



Pick the file 'test.igs' so that its name is echoed in the 'File name' field as shown above. Remove the ticks from the **Repair**, **Prepare** and **Export** boxes in the Wizard. Click on 'Finish' and after the data has been processed you should be presented with the graphics window shown below:



Using the 'File' drop down menu select '**Exit CADfix**' and close the program down.

Certain libraries necessary for the import/export to CADD5 are **NOT** supplied, as they must form part of a CADD5 installation. To configure the option for importing/exporting of CADD5 files the user must ensure that the appropriate environment variables are created. The environment variables **CVPATH**, **LD_LIBRARY_PATH** (or its machine dependent equivalent) and **FEDS_DATA_DICT** must point to the appropriate location supplied as part of the CADD5 installation:

Environment variable		Typical location
CVPATH *		/cvuts/data and /cvuts/cvdors/data
SUN	LD_LIBRARY_PATH	/cadds/slib and /cadds/lib
IBM	LIBPATH	
HP	SHLIB_PATH	
FEDS_DATA_DICT **		/cadds/data/dd/data_dict.rdd

* The **CVPATH** location will depend on the users particular CADD5 system installation

** The **FEDS_DATA_DICT** environment variable is required if the model to be opened contains parametric data.

CADD5 User Notes:

1. HOOPS is a graphics tool that is used by the CADD5 API. On some installations HOOPS messages will be noticed during the reading of CADD5 data. Normally, the messages are just warnings and they don't affect the translation. There are two environment variables that can be set in the users *.cshrc* file that eliminate the warning messages:

```
# These variables eliminate the HOOPS warning messages that occur on some platforms.
if ( ! $?HOOPS_PICTURE ) then
  setenv HOOPS_PICTURE "X11/`hostname`:0.0"
endif
if ( ! $?HOOPS_DRIVER_OPTIONS ) then
  setenv HOOPS_DRIVER_OPTIONS "subscreen=(-0.6,0.6,-0.6,0.6), number of colors = 128"
endif
```

2. When reading CADD5 models into CADfix the user must ensure that the directory pathname must be in **lower case** and less than **72** characters.
3. Users on HP systems experiencing problems with SHLIB_PATH variable may use the following modification:

```
setenv SHLIB_PATH '<new_library_directory>: $SHLIB_PATH'
e.g. setenv SHLIB_PATH '/apl/cadds/lib:/apl/cadds/slib: $SHLIB_PATH'
```

4. Further examples of all necessary environment settings (using HP SHLIB_PATH):

```
setenv CVPATH $HOME/parts=C:'.:/usr/apl/cvuts/data:/usr/apl/cvuts/cvdors/data:
/usr/apl/cvuts/data/iges/lib:/usr/apl/cadds/data: $CVPATH'

setenv SHLIB_PATH '/usr/apl/cvuts/slib:/usr/lib: $SHLIB_PATH'

setenv FEDS_DATA_DICT '/usr/apl/cvuts/cvdors/data/dd/data_dict.rdd'
```

5. For importing CAMU assemblies the CAMU ODB daemon **must** be running. Also the CVPATH environment variables needs to be set to indicate the path to the assembly files e.g.:

```
setenv CVPATH $HOME/parts=C:'.:/usr/apl/cvuts/data:/usr/apl/cvuts/cvdors/data:
/usr/apl/cvuts/data/iges/lib:/usr/apl/cadds/data:/scratch/name/test: $CVPATH'

where /scratch/name/test indicates the path to where the assembly example 'test' lives.
```

NOTE: In cases where the `cvuts` directory is available, look for the following file that may contain all the appropriate settings:

```
/usr/apl/cvuts/scripts/templates/.cvtransrc
```

2.7.

UNIX – Japanese Language Setup

CADfix supports a Japanese language version of the user interface. If the Japanese language version is required then select this option during the installation process.

The language setting can also be specified by defining an environment variable called `CADFIX_LANGUAGE`. The value of this environment variable must be set to: Japanese (the case is important).

The Japanese language setup is controlled by a configuration file that can be found in the CADfix installation.

They are stored in `<install path>/cadfix700/tcl/language`.

The configuration file is call `Japanese.lang`. This file allows the user to change the font used and also the system encoding. The Japanese font and the system encoding can be specified for all UNIX platforms or for each UNIX platform. The encoding can also be over-riden by setting an environment variable called `CADFIX_ENCODING`.

2.8.

UNIX - Platform Specific Notes

This section gives important information regarding the running of CADfix on the supported UNIX platforms.

Database compatibility

CADfix binary database files (i.e. file extension `.fbm` and `.fbb`) created on SGI, Sun, IBM and HP UNIX are not compatible with either Windows or Linux operating systems. Users wishing to transfer model/files between these different machine types are advised to use the CADfix Wizard Export GDX or the CAG format.

Site Configurations

CADfix Administrators may wish to organise a central resource for various configurations to service a site rather than having distributed settings amongst individual users. When initialised CADfix will look for configuration settings in the users HOME directory and at the place identified by the environment variable `CADFIXSITECONFIG`.

The `CADFIXSITECONFIG` location would contain the file `CADfix700` (**Note:** without the full stop in front of the name) and a directory `CADfix.config` (**Note:** again without the full stop in front of the name).

Generally available CADfix configurations would be placed into the site `CADfix700` file accessible for the whole site. Also generally available functions would be available to the whole site under the directory `CADfix.config`. Such as a company wide specific quality testing standard in the `CADfix.config/quality/` directory `<name>.cqs` file.

Where there is a conflict between the configurations in the users HOME directory and the site directory the users home settings will take precedent.

Writing of temporary files

CADfix uses an environment variable `CADFIX_TMPDIR` to identify the directory for temporary files. If the environment variable is set to `PWD` then the working directory will be used. Otherwise the user must ensure that a directory without limiting quotas is available for temporary files. If CADfix runs out of temporary file space the program will fail to continue.

If the environment variable `CADFIX_TMPDIR` is not set then the location of temporary files differs between UNIX and Windows. In both cases it will move onto the next location if it finds it can't write to the previous one(s):

UNIX:

- 1st: environment variable TMPDIR
- 2nd: /tmp
- 3rd: /var/tmp
- 4th: present working directory

So you can control the location of the current temp files by changing the 1st environment variable setting.

2.8.1.

UNIX - Platform Specific Notes - Silicon Graphics

The Silicon Graphics installation was prepared under IRIX 6.5.3 with the mips3 instruction set.

Graphics Refresh

On some Silicon Graphics workstations sections of the CADfix graphics window may not be refreshed and parts of the display may become corrupted. Typically this happens when windows are opened on top of CADfix and the display can then only be refreshed by repainting the whole image. There is a system setting that can be changed to make the graphics refresh automatically when windows are opened over the top of the CADfix frame. The following system file:

```
/usr/lib/X11/xdm/Xservers
```

needs to be edited and the `-bs` option removed. You may need to reboot your machine to invoke the new setting.

2.8.2.

UNIX - Platform Specific Notes - SUN Solaris

The Sun Solaris installation was prepared under Solaris 8.

Operating System Patches

For Sun **Solaris 8** you will need the following patches (or higher) installed:

108434-13, 108435-13, 108528-13, 108827-40, 109461-03, 108991-18, 109147-27, 109152-01, 111177-06, 111433-02, 111459-01, 111697-04, 111721-04.

For Sun **Solaris 9** you will need the following patches (or higher) installed:

112233-08, 112874-16, 112963-10, 112839-04, 111711-07, 111712-07, 111703-03, 111722-04.

The 'readme' associated with each patch needs to be studied before installation to discover whether the kernel patches, for instance, need to be installed first.

Optional Fonts Package

The Xwindows optional font package `SUNWxwofnt` must be installed otherwise CADfix will have problems locating required fonts and will not run correctly.

Graphics Libraries

OpenGL graphics libraries **MUST** be installed on the host computer regardless of whether graphics is required.

Multiple Simultaneous CADfix Processes

More than six CADfix processes running simultaneously on the same machine will result in any subsequent process monopolizing the CPU while running. CADfix may also hang when it's supposed to exit.

This Hewlett-Packard installation was prepared under HP-UX 11.

Delete Key Function

On HP computer keyboards the BACKSPACE key will delete a whole line instead of a single CADfix token. If the user wishes BACKSPACE to delete only a token the following line should be placed in the `.cshrc` file:

```
xmodmap -e "keysum Delete char = Delete" > & /dev/null
```

Kernel Configuration

If you encounter problems getting CADfix started then you should check the maximum data size (`maxdsiz`) kernel setting and make sure it is at least `0x08000000`.

Missing Libraries

CADfix 7.0 contains some C++ code, and has therefore been linked with a C++ compatible linker. Some HP configurations place the necessary libraries in different places. If when trying to start CADfix running the user encounters the following message:

```
crt0: ERROR couldn't open /usr/lib/aCC/dld.sl errno:000000002
```

this indicates that the shared aCC library (`dld.sl`) cannot be found on your system in the directory indicated. This may mean that the directory `aCC` has not been installed on your system at all. Alternatively, the library may reside in another directory on your system e.g. `/usr/lib/`. A solution may be to create a symbolic link to the required directory.

Some patches may be obtained from HP to overcome this problem.

```
PHSS_17225
PHSS_17872
PHSS_20058
```

Please call TranscenData Support if further assistance is required.

This IBM RS6000 installation was prepared under AIX 4.3.3.

Graphics Driver

The IBM operating system must have the following extended OpenGL facilities installed for the drivers satisfactory use:

```
OpenGL.GL32.dev, OpenGL.OpenGL_X.dev      (device software)
OpenGL.GL32.rte, OpenGL.OpenGL_X.rte     (runtime environment)
```

System

Under the 'limit' command allow adequate 'datasize' for CADfix to run.

Some memory problems reading CAD models into CADfix on AIX have been overcome by setting:

```
Preferences...Hardware...Database buffer      =      96MB
Preferences...Hardware...Import/Export file usage =      Temporary files
```

This LINUX installation was prepared under RED HAT 9.0.

Graphics Driver

Graphics problems such as a failure to automatically refresh will occur under Linux unless the following options are enabled:

Logon as Root and into the "screen" section in the X config file (usually /etc/X11/XF86Config or xorg.conf) add:

```
Option "backing_store"
Option "save_unders"
```

CADfix close down

There is a known problem with CADfix on LINUX when a session is exited or closed down. Sometimes when CADfix is exited the process hangs and has to be killed manually from the command line. The problem is even more apparent when you suspend a CADfix session and then bring it back to the foreground. We recommend that you background the initial startup command. That is start CADfix as follows:

```
% cadfix &
```

Database compatibility

CADfix binary database files (i.e. file extension .fbm and .fbb) created on Linux are not compatible with either UNIX or Windows operating systems. Users wishing to transfer model/files between these different machine types are advised to use the CADfix Wizard Export GDX format or the CAG format.

Invalid or inconsistent licence key error

The inconsistent license key error occurs when either of these situations is true: (a) /etc/hosts and the local DNS server do not have an entry for your hostname, or (b) /etc/hosts reports the hostname as having IP address 127.0.0.1. The error occurs when trying to run CADfix on installations of Red Hat Linux 7.1 and higher. To fix this problem, you will need to modify the /etc/hosts file. The license server computer may also have this problem, and it should also be fixed.

First, su to root (you will need the root password). Run hostname to obtain the hostname of your workstation. If "localhost" is reported, you will need to choose another name, and update the name by typing "hostname my-hostname", where my-hostname is the name you've chosen.

You also need to find out the complete DNS name of your computer; for example, if the hostname is rh71, the complete DNS name could be rh71.lan.scalable-networks.com. If you don't know what DNS domain your host resides on, make one up, or just use ".localdomain".

Next, run /sbin/ifconfig -a to obtain the IP address of your workstation.

Open the /etc/hosts file. Update this file so that it looks like the following:

```
127.0.0.1    localhost.localdomain localhost
ip-address  my-full-DNS-name my-hostname
```

Replace ip-address, my-full-DNS-name, and my-hostname; with the IP address, full DNS name, and hostname for your machine, respectively.

It is very important that your hostname does not have 127.0.0.1 on the same line only localhost.localdomain and localhost should be on the same line as 127.0.0.1.

Finally, the inconsistent license key error also occurs when your organization has been licensed for more than three subnets, and your subnet is not one of the first three subnets listed in the server license file. This is a bug in the FLEXlm licensing software.

3.

Upward Compatibility

1. Model and result databases are upwardly compatible, that is, they can be read into more recent versions of the software than they were created with.
2. Session log files and command files are generally upwards compatible, although small changes in command syntax are necessary from time to time and users will be advised accordingly.
3. Any existing interface program developed by the user using CADfix user routines should continue to work with CADfix once it has been re-linked using the supplied object library. Customers linking their own interface will need to contact Support at Transcendata Europe for further advise.

Should you require a licence file or experience any problems installing or running the software supplied, then please do not hesitate to contact us on the standard Transcendata Europe Limited number. We can also be contacted by email at **eusupport@transcendata.com** if required.

For **International TechneGroup Inc.** the support contact number is **(513) 576-3918** and the email contact **works_supp@transcendata.com**.

Reseller customers should contact their local reseller for support.

Further information on CADfix including; FAQ's, supported platforms, service packs and an on-line copy of the Installation Guide can be found at:

<http://www.cadfix.com/support>.

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CADfix makes use of VglTools[®], VisTools[®], FLEXIm[®], Acrobat and PDE/Lib.
CADfix also makes use of ACIS[®], Parasolid[®], Granite[®], InterOp and CVDORS.

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The 'CADfix Licence Terms and Conditions', a copy of which is included with the delivery and is accessible under the CADfix Help menu, bind use of the CADfix software.

A Supported Platform Configurations

A.1. Intel Windows

System	Minimum Configuration	Recommended Configuration	Extracting Information
IBM PC or compatible 2000/XP	Pentium PIII AMD	Pentium P4 AMD	
Hard Disk Drive	300 MB	400 MB	
System memory	96 MB	1GB	
Swap File Size	128 MB	512 MB	
Graphics Card	3D with support for OpenGL	3D with support for OpenGL	
Microsoft Compatible Mouse	3 button	3 button	
CDROM drive			
Recommended Driver	OpenGL	OpenGL	

Software	Required	Extracting Information
Windows 2000/XP		
TCP/IP	Installed with valid IP address	
OpenGL		

Optional Development Software	Required	Extracting Information
FORTRAN	DIGITAL Visual FORTRAN version 6.1A	
C	MS Visual C 6.0	
C++	MS Visual C++ 6.0	

Node Locking Information Required	Extracting Information
Ethernet Address, e.g. 00-60-97-8E-F2-71 Converts to 0060978EF271	From the DOS prompt use: ipconfig /all Send the Ethernet adapters 'Physical Address'

A.2. Sun Solaris

System	Minimum Configuration	Recommended Configuration	Extracting Information
Sun SPARCstation	Ultra 10	Ultra 10	uname -i
Hard Disk Drive	300MB	400MB	df -k
System memory	256MB	1GB	
Swap File Size	180MB	300MB	swap -s
Graphics Card		OpenGL	
Mouse		3 button	
CDROM drive			
Recommended Driver	VGLX	VGLGL	

Software	Required	Extracting Information
Operating system	Solaris 8 (plus required patches)	uname -s -r

Optional Development Software	Required	Extracting Information
FORTRAN	FORTE Workshop 6 update 2 version 5.2	pkginfo SPROf77
C	FORTE Workshop 6 update 2 version 5.2	pkginfo SPROcc
C++	FORTE Workshop 6 update 2 version 5.2	pkginfo SPROcpl

Node Locking Information Required	Extracting Information
Workstation hostid e.g. 8085f9c6	sysdef -h
Network name for floating licence	uname -n

A.3. Silicon Graphics

System	Minimum Configuration	Recommended Configuration	Extracting Information
SG workstation	R4000 mips3	R10000	hinv -c processor
Hard Disk Drive	250MB	350MB	df -k
System memory	128MB	512MB	hinv -c memory
Swap File Size	180MB	300MB	swap -s
Graphics			
Mouse		3 button	
CDROM drive			
Recommended Driver	VGLGL	VGLGL	

Software	Required	Extracting Information
Operating system	IRIX 6.5.3 (mips3)	uname -s -R

Optional Development Software	Required	Extracting Information
FORTRAN	Native 7.3.1	versions 'ftn*'
C	Native 7.3.1	versions 'c_*'
C++	Native 7.3.1	versions 'c+*'

Node Locking Information Required	Extracting Information
Workstation sysinfo e.g. 69022F72	echo ` /etc/sysinfo -s` 16op dc
Network name for floating licence	uname -n

Where: the quotes (`) used above are back quotes.

A.4. Hewlett Packard

System	Minimum Configuration	Recommended Configuration	Extracting Information
HP 9000 workstation	HP9000 series 7xx PA2		uname -m
Hard Disk Drive	250MB	350MB	bdf
System memory	128MB	512MB	
Swap File Size	180MB	300MB	
Graphics			
Mouse		3 button	
CDROM drive			
Recommended Driver	VGLX	VGLGL	

Software	Required	Extracting Information
Operating system	HP-UX 11.0.	uname -s -r

Optional Development Software	Required	Extracting Information
FORTRAN	Native B.10.20.09	what `which ftn`
C	Native A.10.32.20	what `which cc`
C++	Native A.01.21	what `which aCC`

Node Locking Information Required	Extracting Information
Workstation uname e.g. 778DA450	echo `uname -i` 16op dc
Network name for floating licence	uname -n

Where: the quotes (`) used above are back quotes.

A.5. IBM

System	Minimum Configuration	Recommended Configuration	Extracting Information
RS6000 workstation	RS6000 Model 3xx	RS6000 Model 5xx	
Hard Disk Drive	250MB	350MB	df
System memory	128MB	512MB	
Swap File Size	180MB	500MB	
Graphics	2D Graphics	3D Graphics card	
Mouse			
CDROM drive			
Recommended Driver	VGLX	VGLGL	

Software	Required	Extracting Information
Operating system	AIX 4.3.3.0	lslpp -L bos.rte
OpenGL	OpenGL 4.3.3.0	lslpp -L OpenGL.OpenGL_X.rte.base

Optional Development Software	Required	Extracting Information
FORTRAN	Native 7.1.0.0	lslpp -L xlfcmp
C and C++	Native 3.6.6.0	lslpp -L ibmcxx.cmp

Node Locking Information Required	Extracting Information
Workstation uname e.g. 002255294600 use 22552946 i.e. delete 1 st 2 nd 11 th and 12 th digits (may also be a need to remove extra leading zeros)	uname -m
Network name for floating licence	uname -n

A.6. LINUX

System	Minimum Configuration	Recommended Configuration	Extracting Information
Hard Disk Drive	250MB	350MB	df
System memory	128MB	256MB	
Swap File Size	180MB	300MB	
Graphics	2D Graphics	3D Graphics card	
Mouse			
CDROM drive			
Recommended Driver	VGLGL	VGLGL (using OpenGL)	

Software	Required	Extracting Information
Operating system	Red Hat 9.0 or SuSE 9.0	
OpenGL		

Optional Development Software	Required	Extracting Information
FORTRAN	PG F77 (Portland Group) version 6.0	
C and C++	gcc 2.9.6	

Node Locking Information Required	Extracting Information
Workstation Ethernet address e.g. 0002b340fc75 Remove the colons from the HWaddr	/sbin/ifconfig eth0
Network name for floating licence	uname -n

B Translator Product Availability Matrix

CADfix 7.0 Product	SUN * Solaris 8 + patches	SGI IRIX 6.5.3	HP HP-UX 11.00 PA2.0	IBM RS6000 AIX 4.3.3	Windows 2000 & XP	LINUX Red Hat 9.0 & SuSE 9.0
Base (IGES Imp version: any, Exp version: 5.3)	YES	YES	YES	YES	YES	YES
Optional Modules						
ACIS Imp/Exp versions: up to R16	YES	YES (up to R14)	YES (up to R14)	Not Available	YES	YES (up to R14)
AGPS (Imp/Exp of ASCII .dat file)	YES	YES	YES	YES	YES	YES
ANSYS Imp ***/Exp versions: 5.3 to 6.1	YES	YES	YES	YES	YES	YES
CADDS ** Imp/Exp version: 5.0 R12.0	YES	Not Available	YES	YES	Not Available	Not Available
CATIA Import versions: 4.1.x & 4.2.x (Also CATIA files saved as version: 4)	YES	YES	YES	YES	YES	YES
CATIA Export version: 4.1.9	YES	YES	YES	YES	YES	YES
CATIA 5 Import & Export version: R17	YES	Not Available	Not Available	Not Available	YES	Not Available
CENTAUR (Imp/Exp .dat geometry file)	YES	YES	YES	YES	YES	YES
DXF/DWG Imp/Exp AutoCAD versions: up to 14 & 2000	YES	Not Available	Not Available	Not Available	YES	YES
FEMGV Export version: 6.2-01	Not Available	Not Available	Not Available	Not Available	YES	Not Available
FLITE3D (Imp/Exp .dat geometry file)	YES	YES	YES	YES	YES	YES
Inventor Import versions: 6 - 11	Not Available	Not Available	Not Available	Not Available	YES	Not Available
NASTRAN Export	YES	YES	YES	YES	YES	YES
Parasolid Import & Export versions: up to 17.0	YES	YES	YES	YES	YES	YES
Pro/E Imp versions: up to any incl. Wildfire 3. Exp version: Wildfire + neutral file	YES	YES 64 bit only up to Wildfire 2	YES	Not Available	YES	YES
SC03 Export (ASCII .pm file)	YES	YES	YES	YES	YES	YES
SolidWorks Import versions: 98 to 2006	Not Available	Not Available	Not Available	Not Available	YES	Not Available
STEP Imp/Exp version: AP203 & AP214	YES	YES	YES	YES	YES	YES
STL Imp/Exp Binary, ASCII	YES	YES	YES	YES	YES	YES
Unigraphics Import versions: 11-18, NX1 to NX4	Not Available	Not Available	Not Available	Not Available	YES	Not Available
VDAFS Imp version: any Exp version: 2.0	YES	YES	YES	YES	YES	YES

* Requires installation of additional operating system patches.

** Requires CV-DORS for CADDS 5 import and export.

*** ANSYS import reads the ANSYS Neutral File (.anf) format