INSTALLATION GUIDE

Grid*Pro* v8.0

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1. DOWNLOADING Grid*Pro*

Contact the Grid*Pro* team by sending a mail to gridpro@gridpro.com to get the download links for the required OS.

You can also download the software for the respective OS from our website www.gridpro.com.

For those who are using the Grid*Pro* installation CD package the software can be installed with respect to the OS from the CD.

2. CD CONTENTS

S.No	DIRECTORY	CONTENTS
1	Grid*Pro*_Windows	Contains windows installation files for 64 bit OS.
2	Grid*Pro*_Linux	Contains Linux installation files for 64 bit OS.
3	Grid*Pro*_RHEL	Contains RHEL installation files for bit OS.
4	Grid*Pro*_Mac	Contains Mac installation files for 64 bit OS.
5	Exceed	Contains Exceed and Exceed3D installation files for both 32 & 64 bit OS.
6	Manuals	Contains Installation guide, Grid*Pro*_ws GUI manual, Grid*Pro* utilities manual, User guide for Topology Input Language (TIL) manual, Reference manual for TIL programming and AZ graphic manager manual.
7	Tutorials	Contains basic Tutorials and Videos

3. REQUIRED PACKAGES

The necessary packages to be downloaded have been classified below based on the OS details. Users can download their respective packages and install for Grid*Pro* to work.

OS INFORMATION	SOFTWARE PACKAGES
Windows 64bit	Grid*Pro* win 64bit, Exceed 64bit, Exceed3D 64 bit.
Linux 64bit	Grid*Pro* Linux 64bit
RHEL 64bit	Grid*Pro* RHEL 64bit
Cent 64bit	Grid*Pro* Cent 64bit
Mac	Grid*Pro* Mac version

*We are supporting 32bit OS only on request basis.

4. SYSTEM REQUIREMENTS

The minimum system requirements to run the Grid*Pro*_ws GUI are as follows based on the OS:

Packages info	OS in which it has to be installed
Windows 32bit & 64bit	Windows 7 and higher versions
Ubuntu 32bit & 64bit	Ubuntu 16.04 and higher versions
RHEL 32bit & 64bit	RHEL
Cent 32bit & 64bit	Cent OS
Mac	Mac OS x10.11 and higher versions

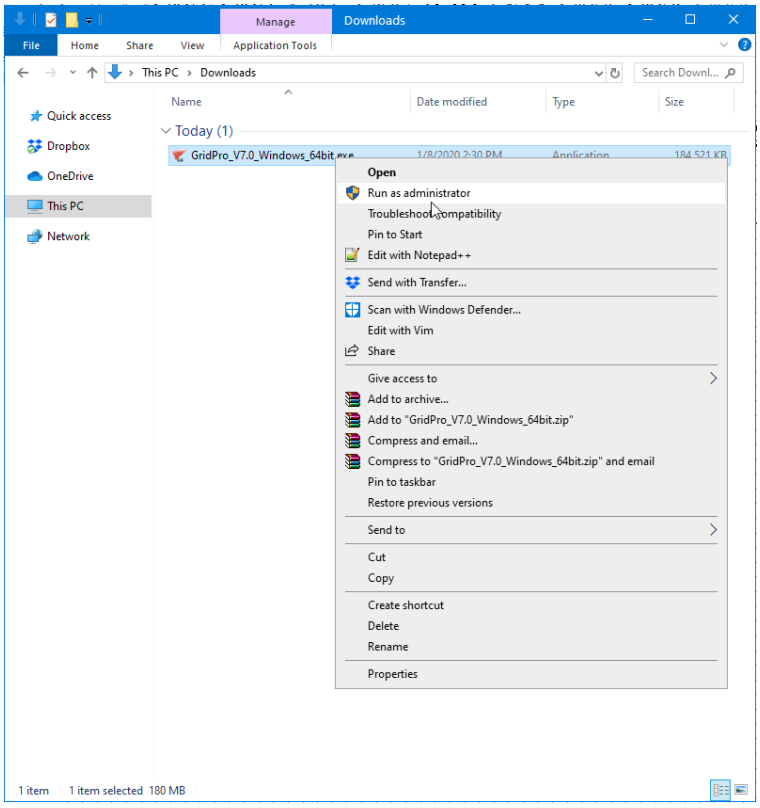
Minimum system requirements for all Platforms:

- 1280*800 screen resolution
- 2GB RAM
- 600 MB Disk Space
- Ethernet card
- Graphics card (recommended)

5. INSTALLATION PROCEDURE

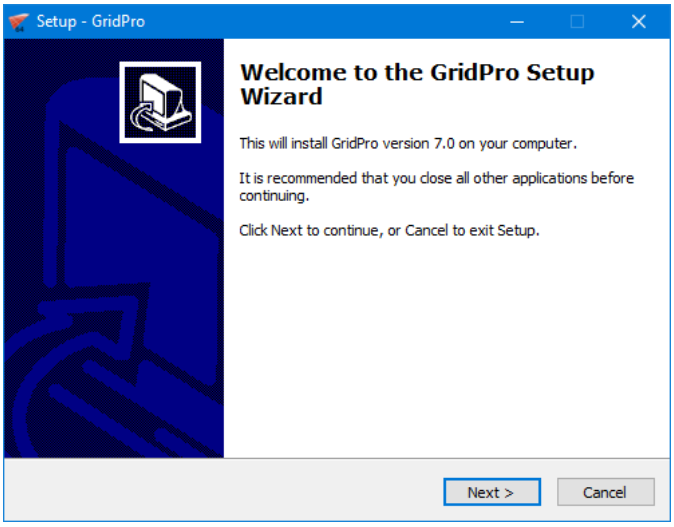
5.1 INSTALLATION PROCEDURE FOR WINDOWS USERS

1. Right click on the Grid*Pro* setup file and click the ‘Run as administrator’ option.

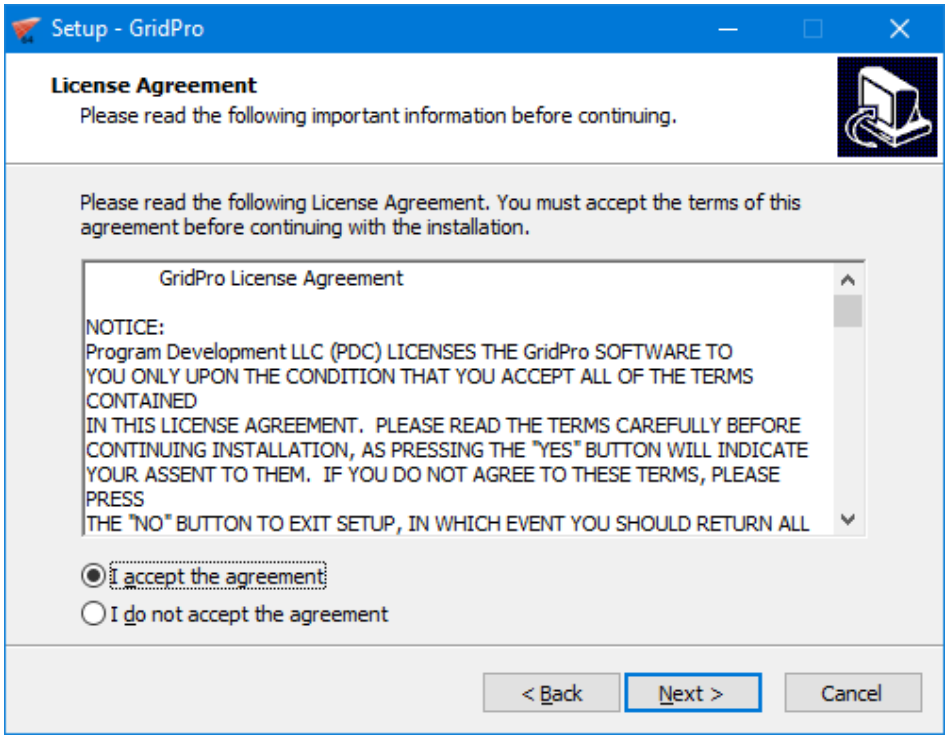


2. Give administrator permission by clicking on ‘Yes’ when it prompts.

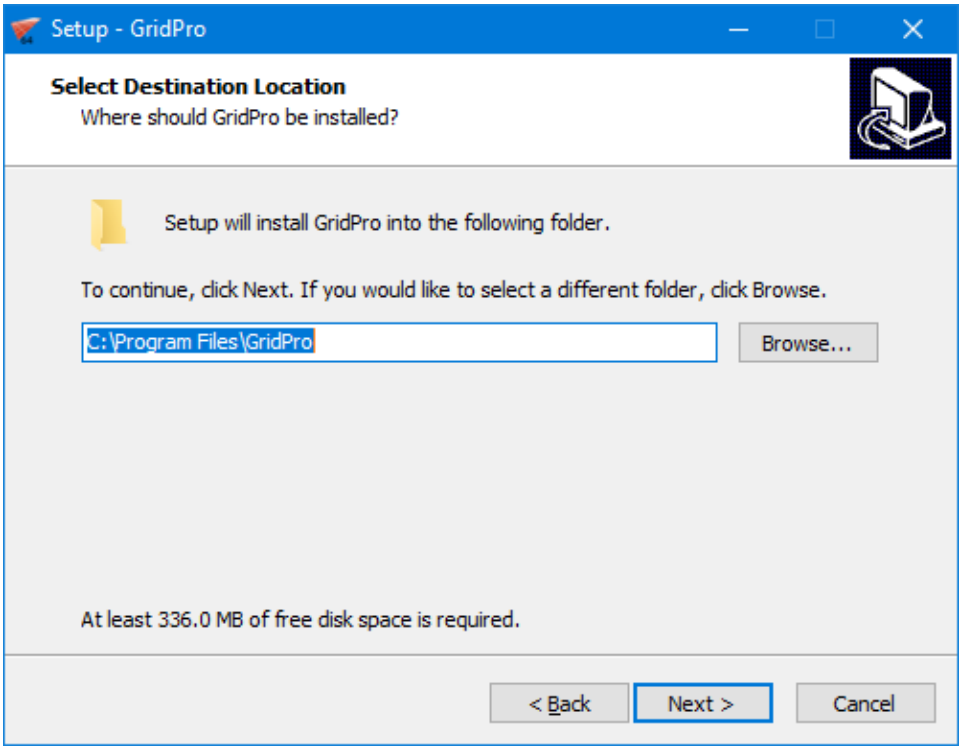
3. Click ‘Next’ to continue.



4. Accept the Grid*Pro* license agreement and continue.

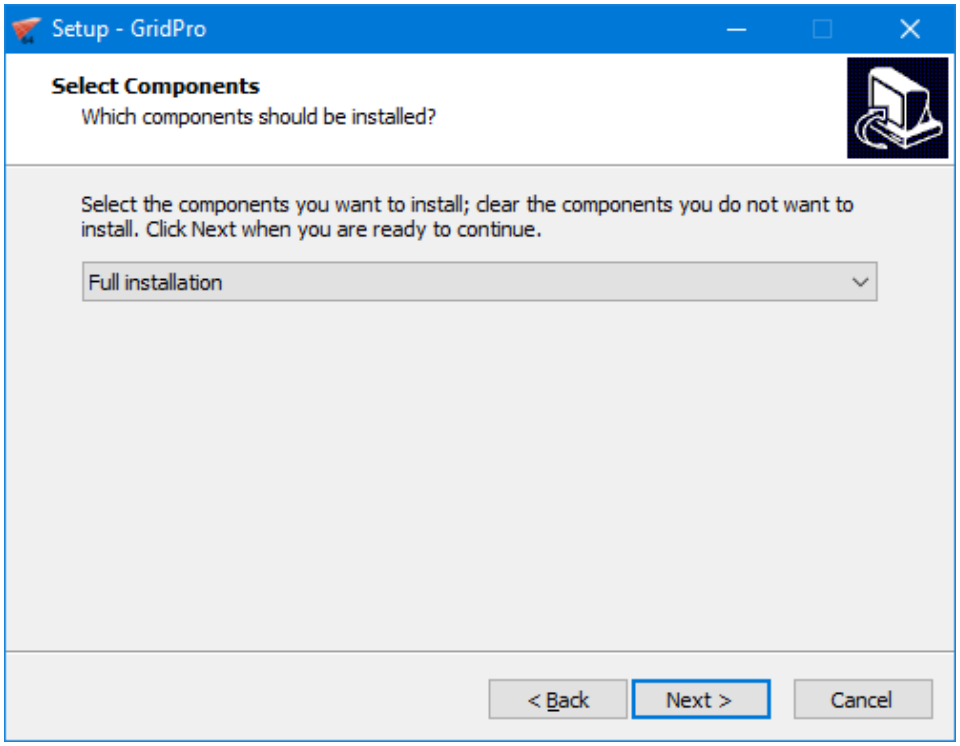


5. Click 'Next' to install Grid*Pro* v8.0 in the specified folder. **NOTE:** It is always recommended to install in the Program Files. If the default destination folder is either Program Files(x86) or some other folder, change the destination to "C:\Program Files" by clicking on the 'Change' button.

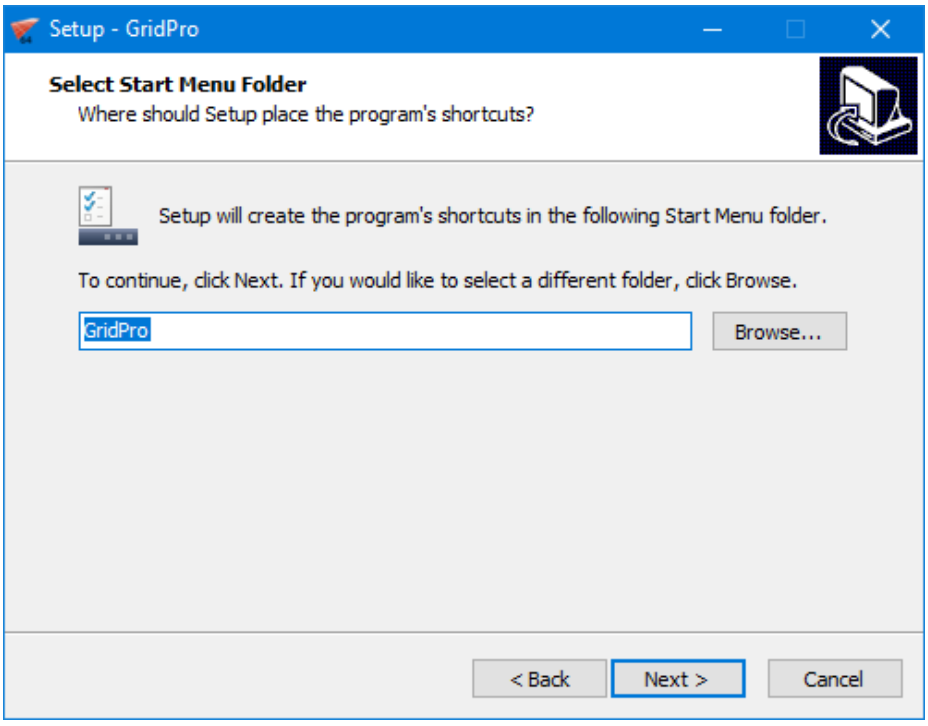


6. Select ‘Full Installation’ from the drop down to install the both the software and license manager.

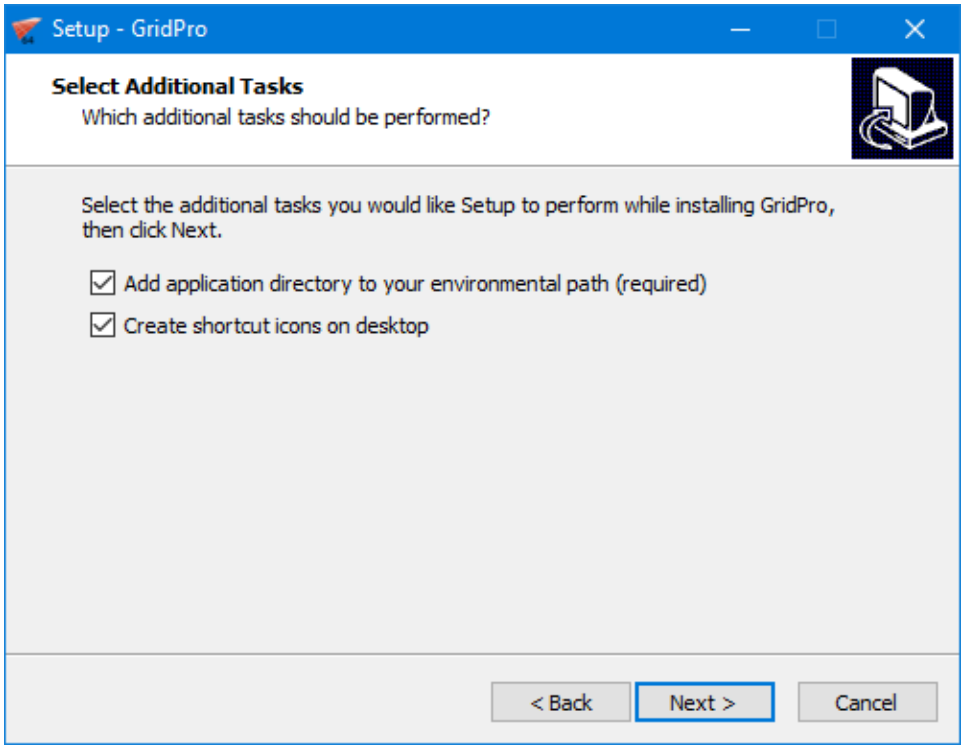
NOTE: Users who want to install Grid*Pro* in the server and access it from client machine can select the license manager only option in the server machine (To save the disk space in the server) and select the ‘Full installation’ option in the client machine.



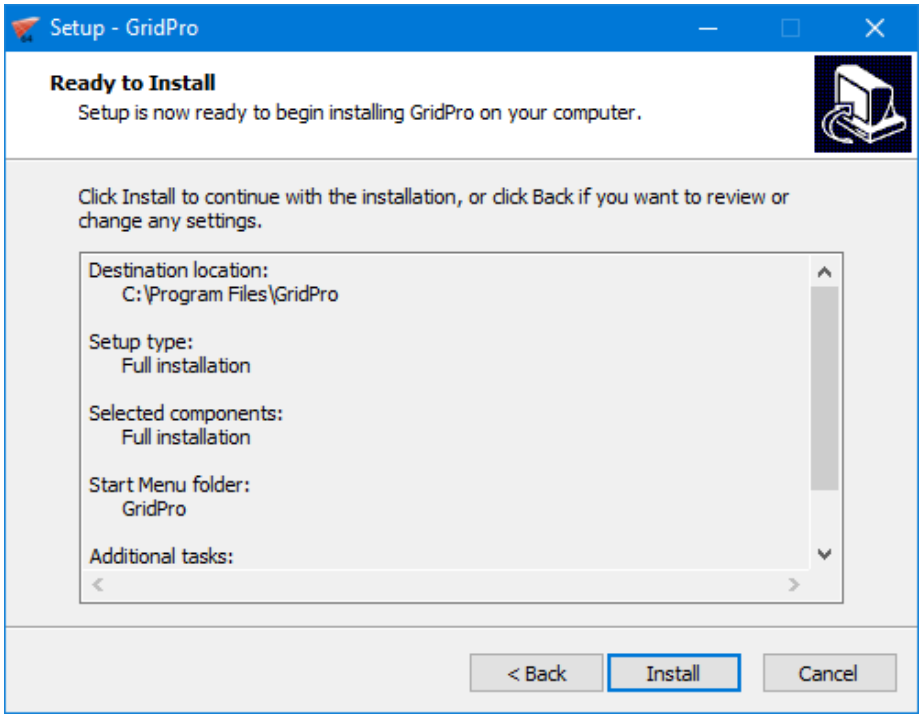
7. Click ‘Next’ to create a shortcut in the specified folder (Start menu). The destination folder can be changed by clicking on the ‘Browse’ option.



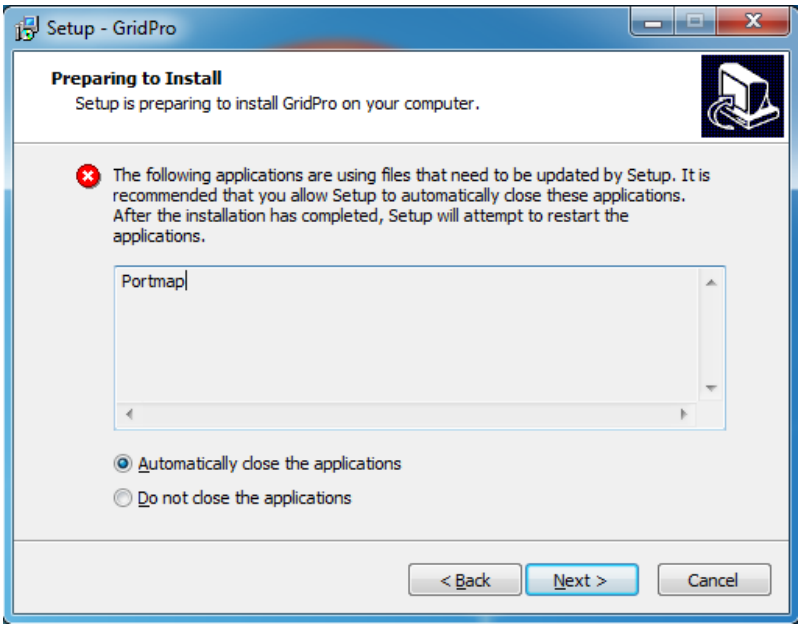
8. Check the ‘create a desktop icon’ checkbox and click ‘Next’ to proceed further with the installation. Do not uncheck the first check box, because it is must to add the directory to the environmental variable.



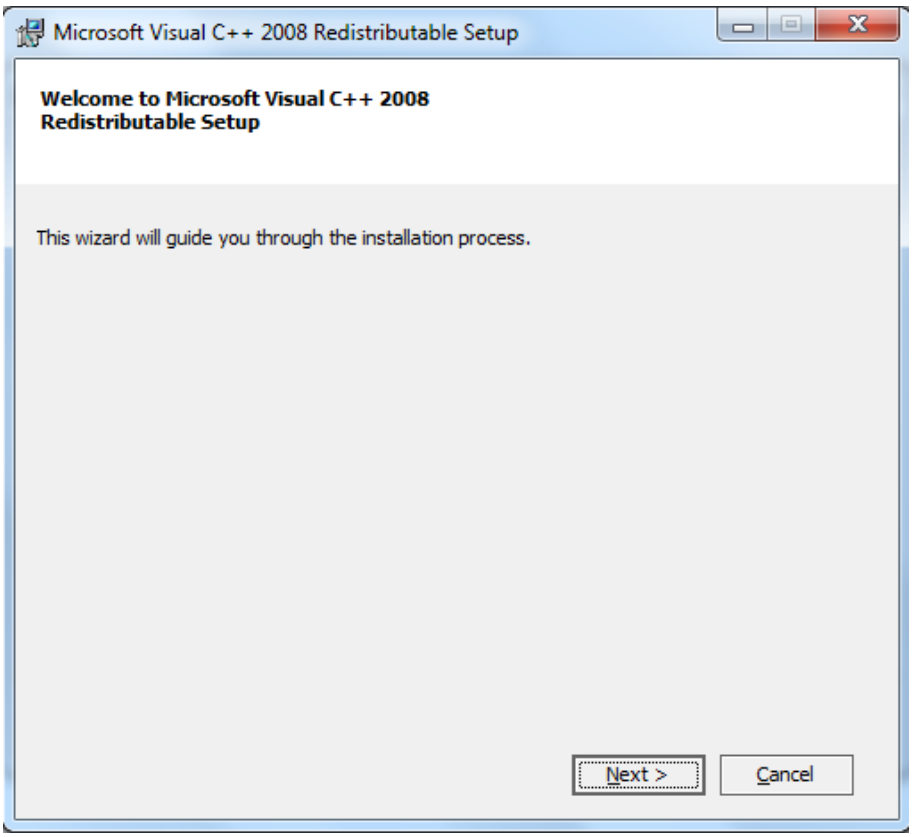
9. Click ‘Install’ to start the installation process.

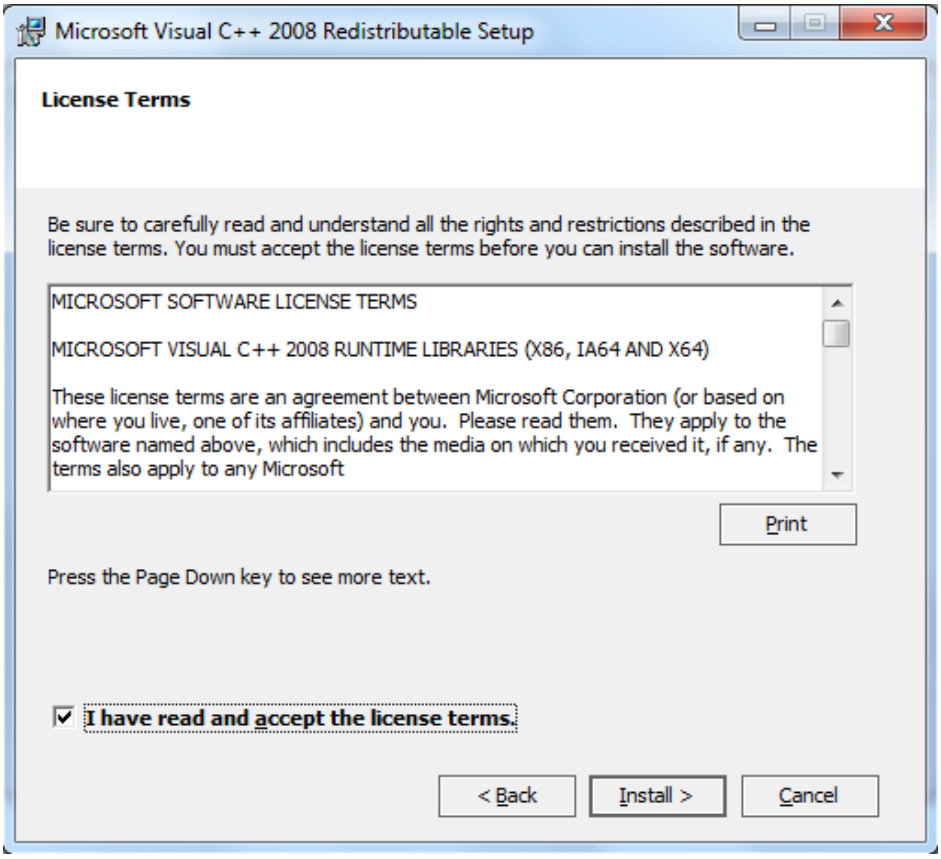


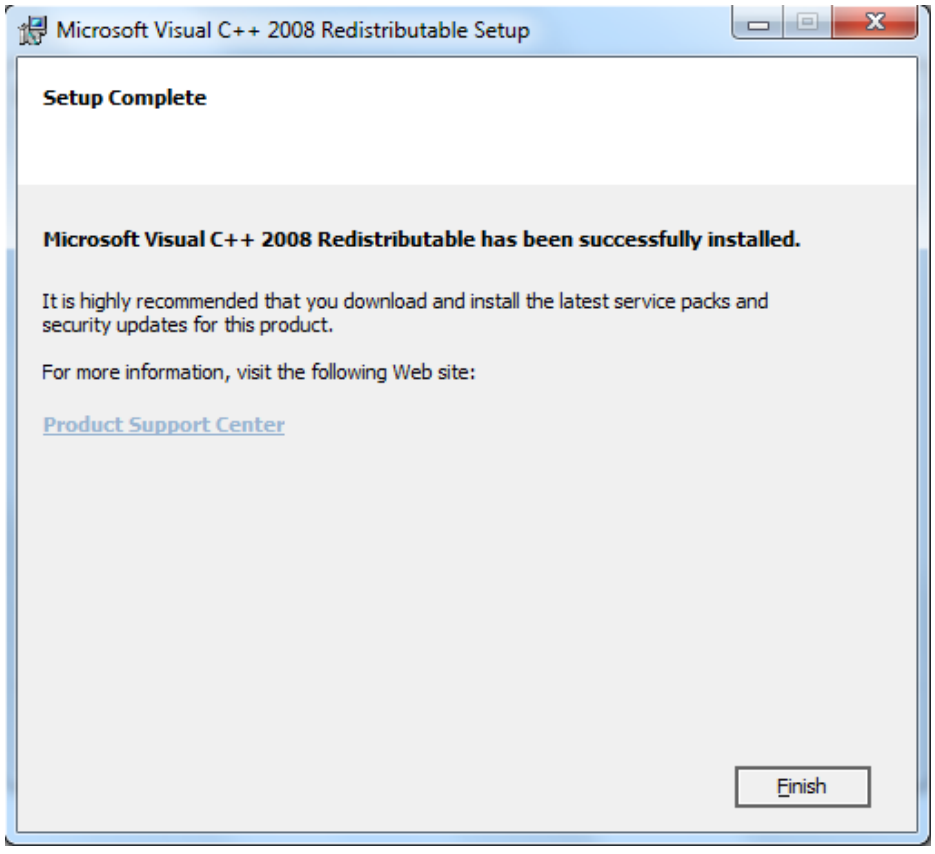
10. If portmap service is running in your machine, the setup file will prompt for confirmation. Select ‘Automatically close the applications’ option and click ‘Next’ to proceed.



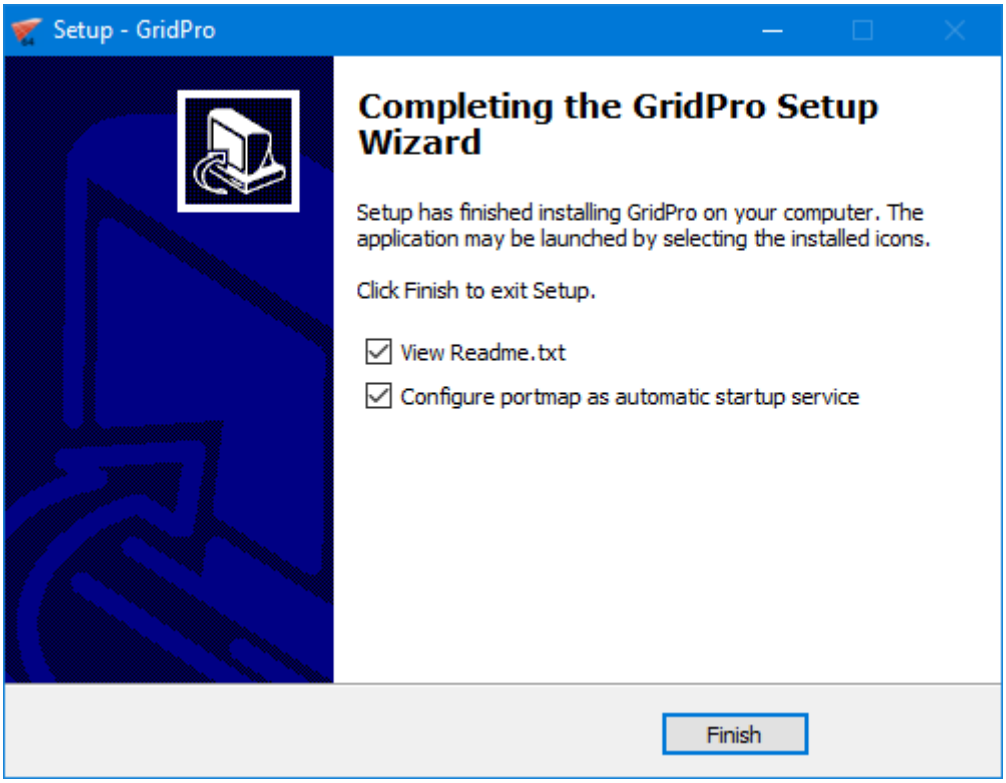
11. The application requires ‘Microsoft Visual C++ 2008 Redistributable’ to be installed. Click yes to install. If you have a previous installation of Microsoft Visual C++ redistributable, it would pop out asking you for uninstall or for repair. Clicking on repair will continue the installation.




Microsoft Visual C++ 2008 Redistributable Setup
License Terms
Be sure to carefully read and understand all the rights and restrictions described in the license terms. You must accept the license terms before you can install the software.
MICROSOFT SOFTWARE LICENSE TERMS
MICROSOFT VISUAL C++ 2008 RUNTIME LIBRARIES (X86, IA64 AND X64)
These license terms are an agreement between Microsoft Corporation (or based on where you live, one of its affiliates) and you. Please read them. They apply to the software named above, which includes the media on which you received it, if any. The terms also apply to any Microsoft
Print
Press the Page Down key to see more text.
I have read and accept the license terms.
< Back
Install >
Cancel


Microsoft Visual C++ 2008 Redistributable Setup
Setup Complete
Microsoft Visual C++ 2008 Redistributable has been successfully installed.
It is highly recommended that you download and install the latest service packs and security updates for this product.
For more information, visit the following Web site:
Product Support Center
Finish

12. Click ‘Finish’ to complete installation and go through the ‘Readme’ file to know from where to obtain the license file.



NOTE: Once the installation is done, the portmap will automatically restart if it has stopped while installation.

5.2 INSTALLATION PROCEDURE FOR LINUX USERS

1. Open a command terminal by typing CTRL+ALT+T.

2. Navigate the path to the folder where the Grid*Pro* software file is. For e.g. if the software is in '**Downloads**' folder,

   Syntax: **cd Downloads** (Note: The path of the terminal would be the HOME folder by default)

3. Provide executable permissions to 'Grid*Pro*_v8.0_Linux64bit.run' using the following command.

   Syntax: **chmod a+x <file name>**

4. Once it is done, install the application by typing the command,

   ./<file name>

5. You will be prompted to choose the installation directory. Press 'Enter' to install it to HOME directory. If you want to install it in different directory, type the full path and press 'Enter'.

6. Next, enter '1' to install full installation which will install both application and the license manager.

NOTE: Users who want to install Grid*Pro* in the server and access it from client machine can enter '2' (license manager only option) in the server machine (To save the disk space in the server) and enter '1' (full installation) in the client machine.

NOTE: Please refer to section 9.17 of this document before generating the license information.

*After installing the software you can skip to Chapter 6 to get the license file.

**Similarly follow the same steps for RHEL using RHEL installation packages and Cent OS using Cent installation packages.

5.3 INSTALLATION PROCEDURE FOR MAC USERS

1. Open the command terminal.
2. Navigate the path to the folder where the Grid*Pro* software file is. For e.g. if the software is in '**Downloads**' folder,

   Syntax: **cd Downloads** (Note: The path of the terminal would be the HOME folder by default)

3. Provide executable permissions to 'Grid*Pro*_v8.0_Mac.run' using the following command.

   Syntax: **chmod a+x <file name>**

4. Once it is done, install the application by typing the command,

   ./<file name>

5. You will be prompted to choose the installation directory. Press 'Enter' to install it to HOME directory. If you want to install it in different directory, type the full path and press 'Enter'.

6. Next, enter '1' to install full installation which will install both application and the license manager.

NOTE: Users who want to install Grid*Pro* in the server and access it from client machine can enter '2' (license manager only option) in the server machine (To save the disk space in the server) and enter '1' (full installation) in the client machine.

6. HOW TO GET THE LICENSE FILE

Extracting license information:

1. Open the command window in any desired location.
2. Type '**lcst**' and press 'Enter'.

```
C:\Users\GridPro2>lcst
pdclm: User Info: 8275896930(=0xe3236z5f0) 'GridPro=168.123.7.11'
pdclm: license file selected by GridPro default.
pdclm: licenser_id=0 release=Mar 1 16:17 2021
pdclm: create 'C:\Users\GridPro2/.clnt_lcst.log'
pdclm: load   'C:\Program Files\GridPro/lc_mngr/gridpro.lic' ...
pdclm: can't open 'C:\Program Files\GridPro/lc_mngr/gridpro.lic'
no requested licenses found:ñ=xs
```

Fig 6.1: Information from lcst

3. Fig.6.1 shows the message displayed. Note down the highlighted line '**pdclm: User Info: 8275896930(=0xe3236z5f0) 'GridPro=168.123.7.11'**'.
4. Close the GUI of Grid*Pro* and go back to the command window and type 'Ggrid'.

```
C:\Users\GridPro2>Ggrid
+---------------------- Ggrid -----------------------+
| The GridPro grid engine, 'helpaz <ret>' for help.    |
|         !!! For Authorized Use Only !!!              |
| (c)Copyright 1992-2021,   Program Development Comp.  |
|     ----   Licensed Materials, All Rights Reserved.  |
| 300 Hamilton Ave.,Suite 409, White Plains, NY 10601  |
| Tel: (914) 761-9152            Fax: (914) 761-1735   |
+------------------------------------------------------+
Version  : 8.0  (Mar 1 16:17 2021)
User Info: 8275896930(=0xe3236z5f0) 'GridPro=168.123.7.11'
USAGE    : Ggrid fn.fra options
PURPOSE  : generate 3d multiblock grid.
```

Fig 6.2: Information from Ggrid

5. Similarly note down the highlighted line. **User Info:** '**8275896930(=0xe3236z5f0) 'GridPro=168.123.7.11'**'.
6. Send both the user info to license@gridpro.com in order to obtain the license file. NOTE: Mostly both of them would be same; if it is different, we require both the details to issue the license.

7. LICENSE INSTALLATION

The license file received from **Program Development Company** support should be renamed as *gridpro.lic* and copied to the lc_mngr folder of the Grid*Pro* installation directory.

7.1 MORE INFORMATION ON LICENSING

Two different types of licenses are provided, depending on the type of purchase, provided by **Program Development Company** for the use of **Grid*Pro***.

LICENSE	FUNCTION
SNode	Allows Grid*Pro* to run on one machine through a server. A restricted number of copies can run at one time.
Floating	Allows Grid*Pro* to run on any machine on a network with a server. A restricted number of copies can run at one time.

Any license, whether floating or SNode, will be named '**gridpro.lic'** in the **GridPro/lc_mngr** directory.

Each license consumes two lines of the file, and depending on the type of license, the '*gridpro.lic*' will contain the, **Product Name, Version, Expiration Date, Server ID**, **Server Hostname** (or **IP Address), Client ID, Number of Concurrent Copies, License Type,** and **Client ID** (for Snode Locked licenses only).

For **Served licenses**, the contents of the '*gridpro.lic*' for all of the installations of **Grid*Pro*** should be identical on the LAN, and they should all be copied into all of the client machine's **GridPro/lc_mngr** directory (for each installation there is only one directory). In other words, all of the participating computers should see the same set and order of licenses so the system administrator must sync all of the**..../gridpro.lic** files that operate in the server system.

7.2 STARTING A LICENSE SERVER

USAGE: lcmgr [lic_file] [-p port_number] [-h]

OPTIONS:

lic_file -- the file contains pdclm licenses. By default, the file $PDC_LC_FN or 'GridPro/lc_mngr/gridpro.lic' is sought.

-h -- show help information.

-p -- specify port number for the license server.

When using float or snode licenses, default port is always random. To specify a fixed port number for the server, use the -p <port_number> option.

You can also run the batch script file, 'lcmgr_svc.bat' file provided in the Installation directory, '/GridPro/bin'. By default it takes the random port number. Change it to the desired port number using a text editor.

NOTE: Setting an unavailable port number may result in assignment of another random available port or an error code depending on the system. Please check if the port is available before using it.

7.2.1 UNIX/LINUX SERVERS

1. Start the license on the server machine by typing “lcmgr” in the terminal and hitting ENTER. The license file directory is assumed to be ‘GridPro/lc_mngr/gridpro.lic’, if it is different you need to supply the full path to the license file in the command. A specific port can be set with the -p option.

2. The Grid*Pro* GUI can then be launched from a terminal on the **client machine** (open a different terminal if server and client are the same machine) by typing the executable name ('az' or 'gp_utilities').

7.2.2 WINDOWS SERVERS

The steps to be followed to install and run the license from a windows server are:

1. The RPC portmapper service (if not already installed) is now installed along with the Grid*Pro* installation. The startup type of the Portmap service is also set to automatic, so there is no need to start it manually.

2. Start the license on the **server machine** by typing in 'lcmgr' at a command prompt and hitting ENTER. The license file is assumed to be 'GridPro/lc_mngr/gridpro.lic', if it is different you need to supply the full path to the license file in the command. A specific port can be set with the -p option.

3. The Grid*Pro* GUI can then be launched from a command prompt on the **client machine** (open a different command prompt if server and client are the same machine) by typing the executable name ('az' or 'gp_utilities').

NOTE:
• You need to run the “lcmgr” command if you are accessing a server.
• lcmgr can be run without root access
• There can be only one lcmgr run per subnet.
• For new net licenses, kill the existing lcmgr process and rerun it.

❖ On windows, if you already have portmap or lcmgr installed and running from your GridPro/bin directory, during installation you might see an error saying "Access is denied". These processes should be stopped before starting the installation. For details refer to the troubleshooting guide.

➢ ***Note:*** To run the lcmgr automatically as windows services, run ‘lcmgr_svc.bat’ file in the installation directory, ‘C:\Program Files\GridPro\bin’(Default installation directory).

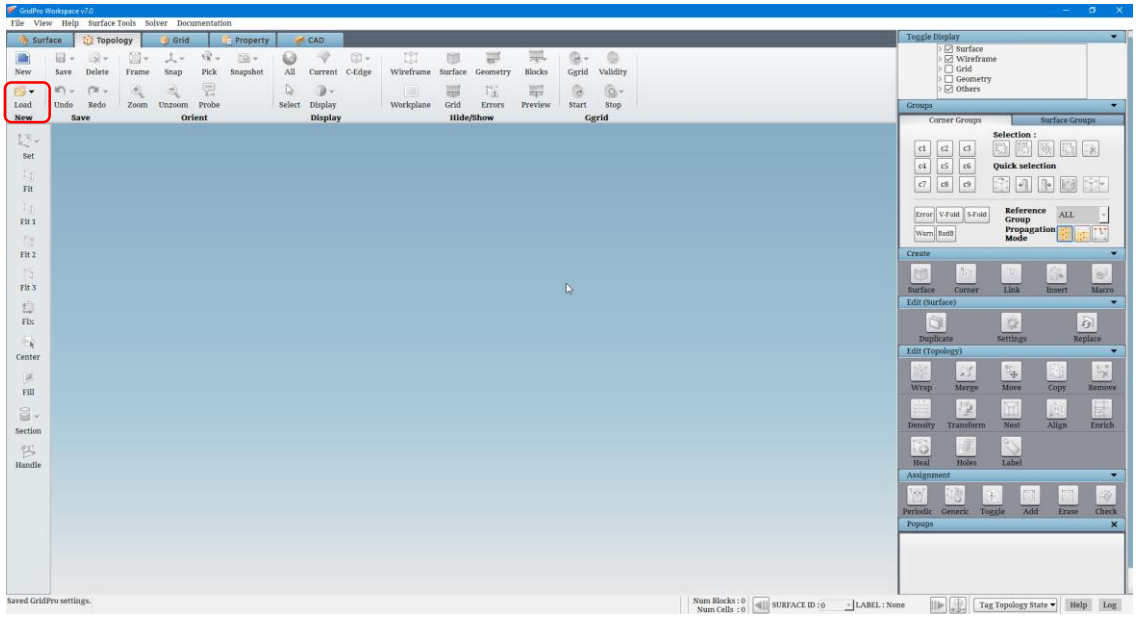
8. TESTING Grid*Pro*

1. Copy the license file ‘gridpro.lic’ to the lc_mngr folder in the installation directory.

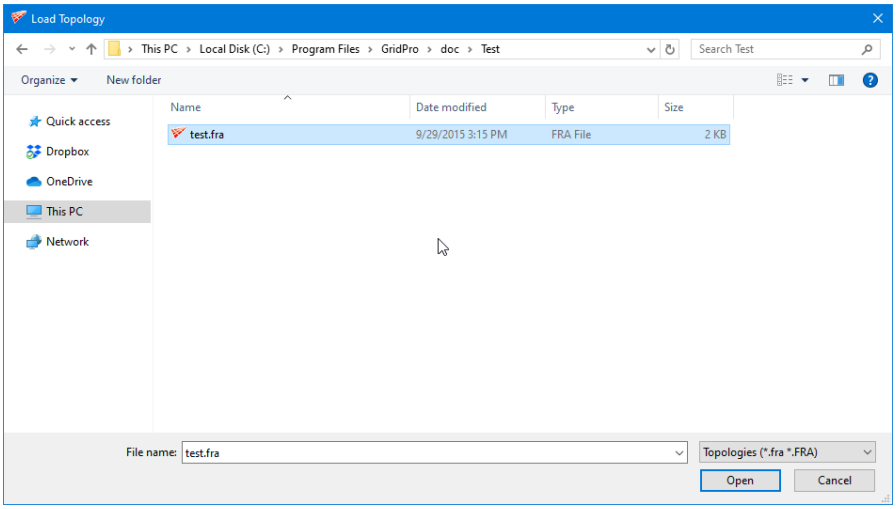
2. Copy the **doc** folder to the desktop from the installation directory location, “**Program Files\GridPro\doc**”.

3. **Double click** the shortcut icon created in the desktop to open the GUI.

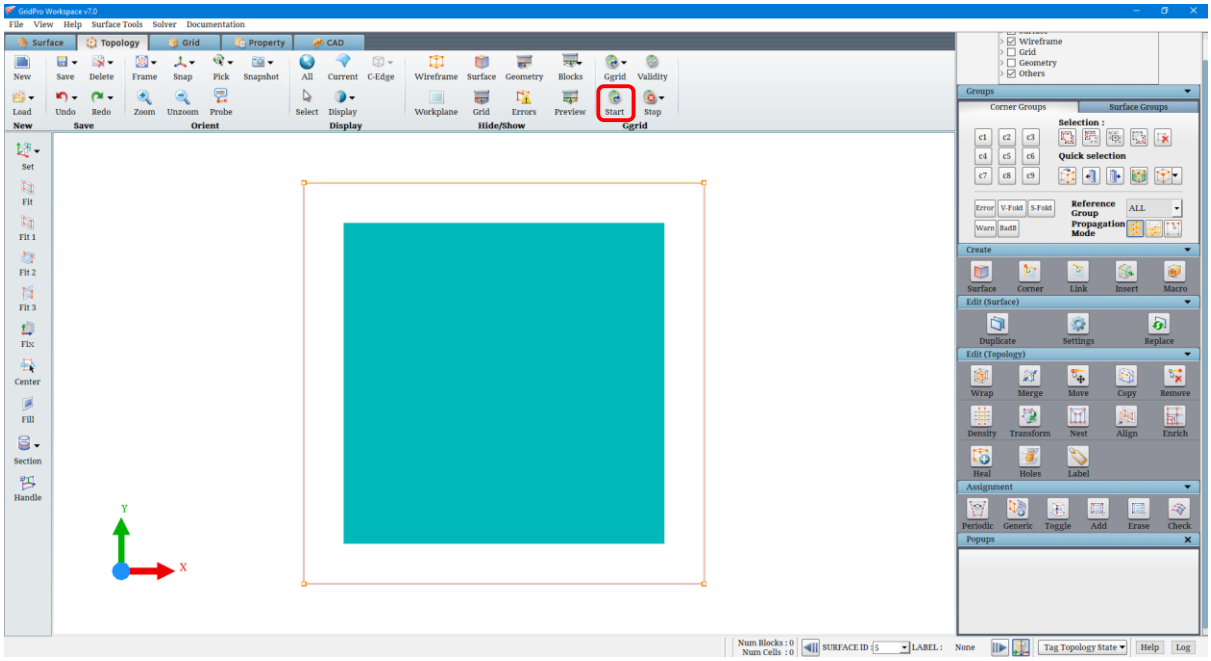
4. Grid*Pro* **ws** GUI opens along with a terminal



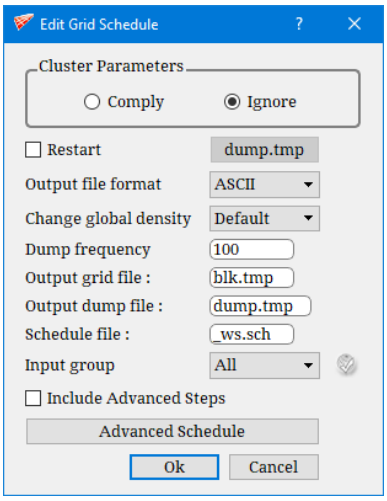
5. Click on ‘**Load**’ button and set the path to **test** folder inside the doc directory kept in the desktop.



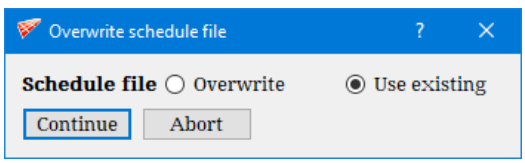
6. Select the '**test.fra**' file and click 'Open' to load the file into the GUI.



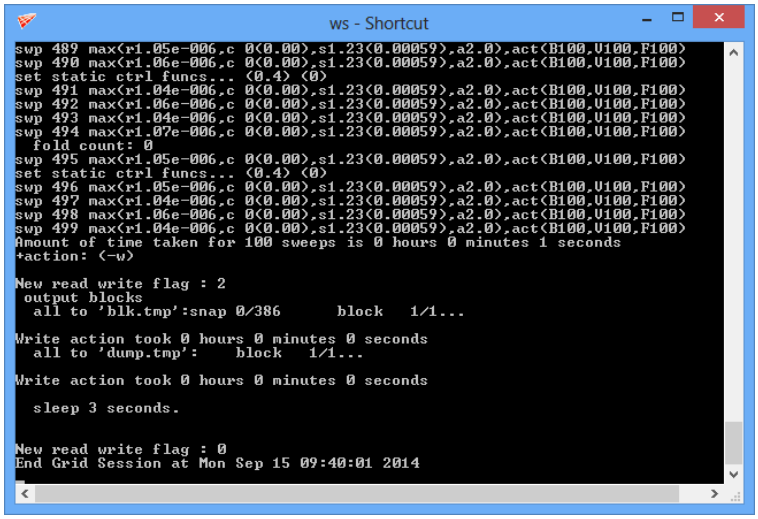
7. Click on '**Start**' button located in the global dock to start the gridding process. Click on 'Ok' in the 'Edit Grid Schedule' dialog box.



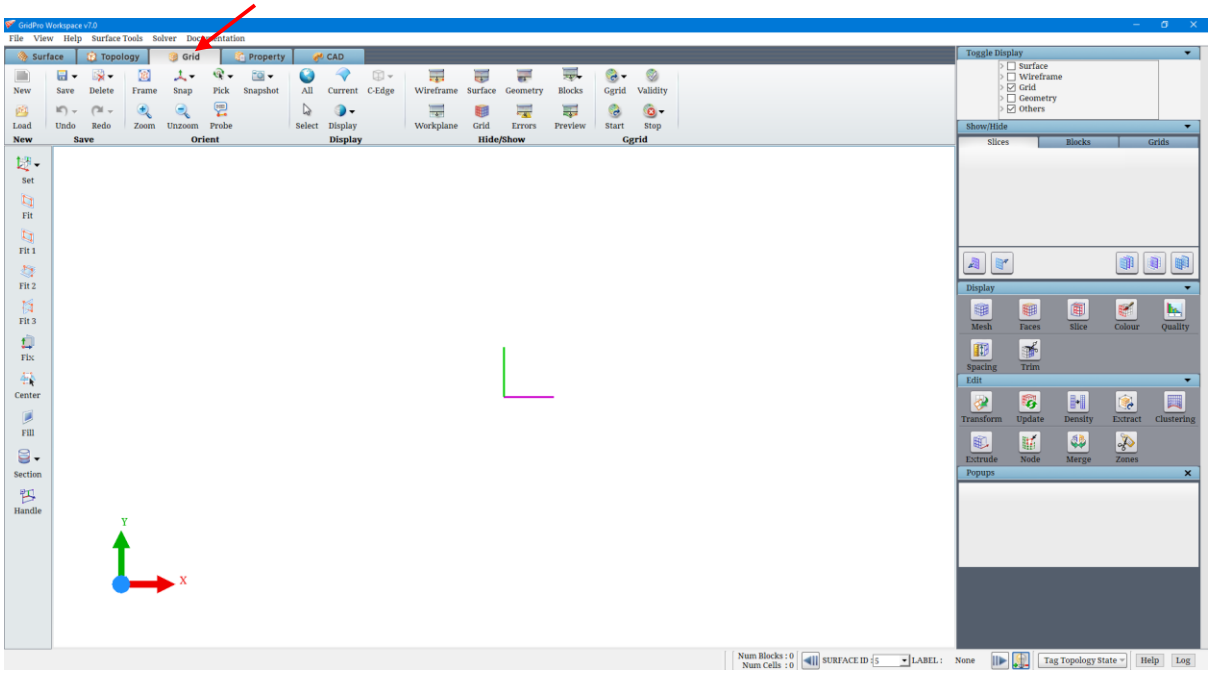
8. Click on '**Use existing**' option in the confirm dialog box.



9. In the terminal, note that the gridding process is stopped at 500 sweeps.

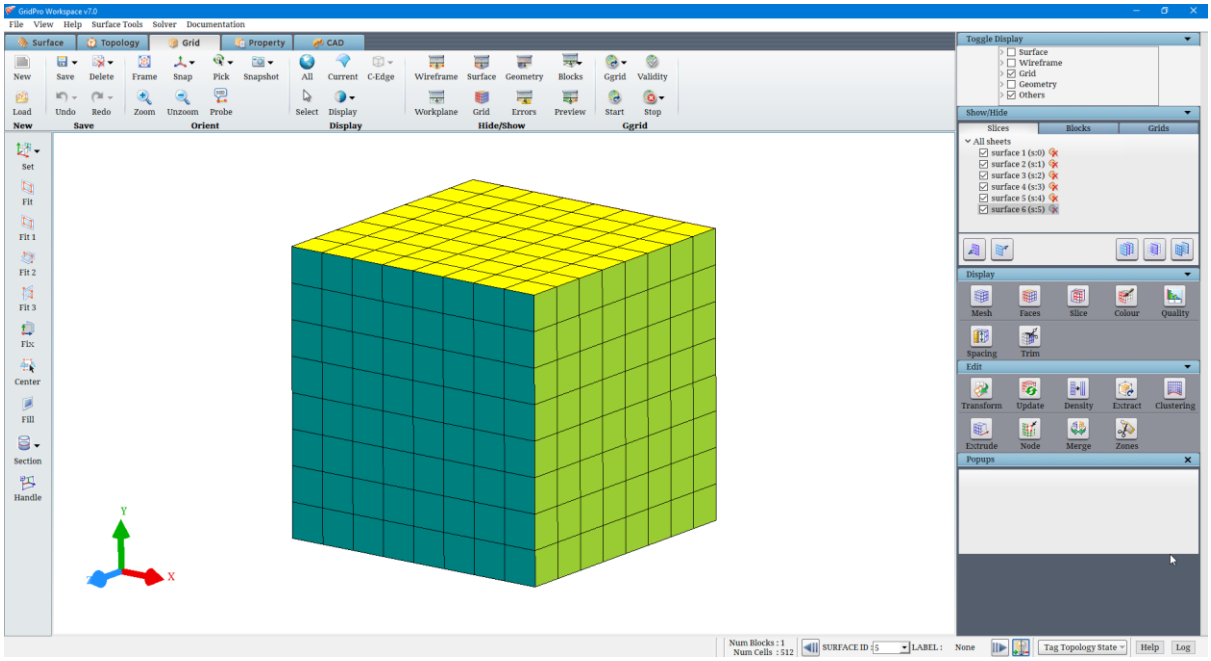


10. Click on the Grid button to switch to **Grid** tab.



11. Click on the **load** button and select 'blk.tmp' file in the file dialog box.

12. The grid blocks is loaded into the UI and cells are automatically generated (from v6.7). Rotate the screen using the middle mouse button to view the grid blocks in isometric view.



If you are able to do all these above mentioned steps properly in the GUI, it denotes that **Grid*Pro* ws** is working well.

9. TROUBLESHOOTING

9.1 HCLGLU.dll and HCLXAW.dll is missing:

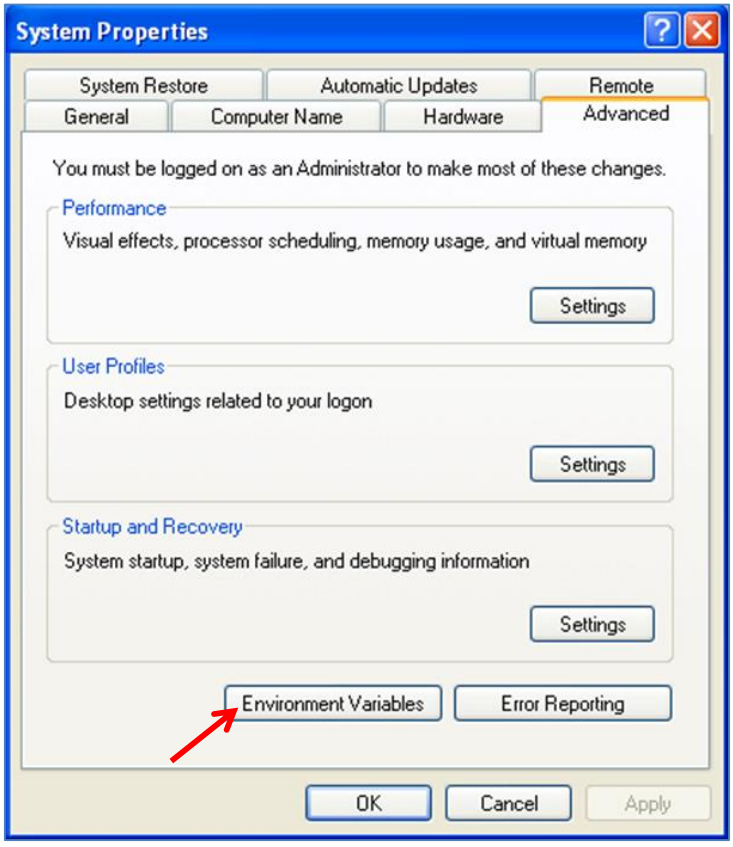
Solution: Set the environmental variables for exceed.

Have you installed both Exceed and Exceed 3D on your machine? If so, you will need to setup the Path to Exceed before you can start using the Grid*Pro* graphics. The following steps illustrate how to do this.

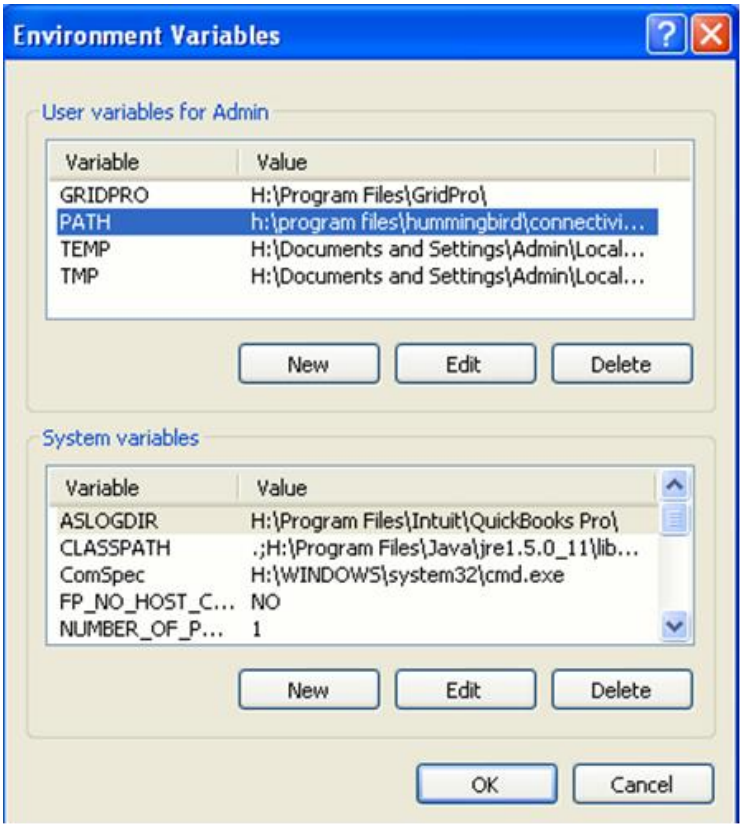
1. After finishing the Grid*Pro* installation process, make sure the path to exceed exists in your computer. To do this, right-click on the

(My Computer) icon (do not right-click on the shortcut) and select properties and on the top tabs select advanced (in most cases, you need to add this path manually).

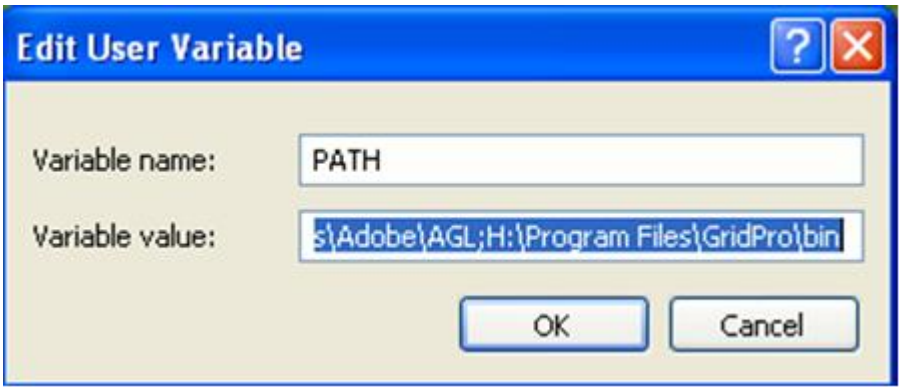
For vista and Win 7 users, after selecting the properties, click on 'Advanced system settings' option at the left side of the property window.



2. Click on the 'Environment variables' tab at the bottom of the window. The new window shows different environment variables as shown in the picture below.



3. Double click on the PATH variable, and a smaller window will pop up. NOTE: If there is no PATH variable exists under 'User variables for Admin, click on the 'New' button and Edit the vairable name and variable value manually.



4. Check for the Exceed Path that might be in the form:

C:\program files\hummingbird\connectivity\12.00\exceed.

The number after " \connectivity\ " indicates the version of exceed. For Grid*Pro* van Exceed 8 version or above is required.

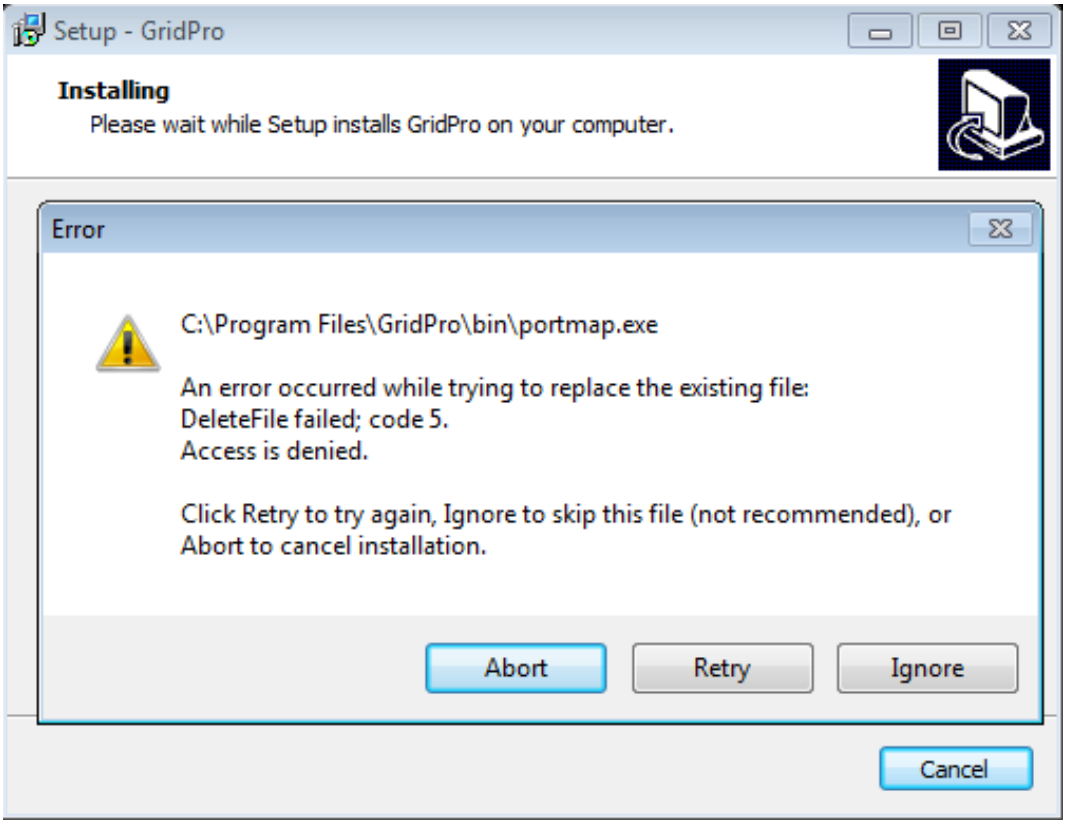
5. If the exceed path is not found or does not exist, you will have to enter this path manually. Before entering it. make sure you have Exceed installed in your computer.

Check in *C:\Program Files\Hummingbird\Connectivity\x.00\Exceed* or *C:\Program Files\Exceed.nt*

'x' in the aboove path is the version number of the Exceed installed on the machine.

9.2 Access denied: When installing portmap

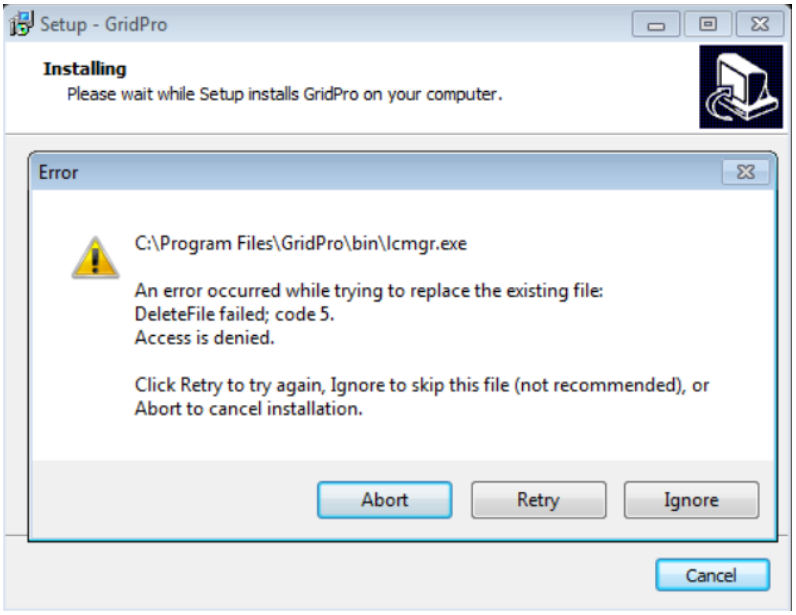
If the portmap is already running on your server while installing GridPro, you might encounter an error as shown in figure below.



Solution: In such case, click on '**Ignore**' to continue the installation process.

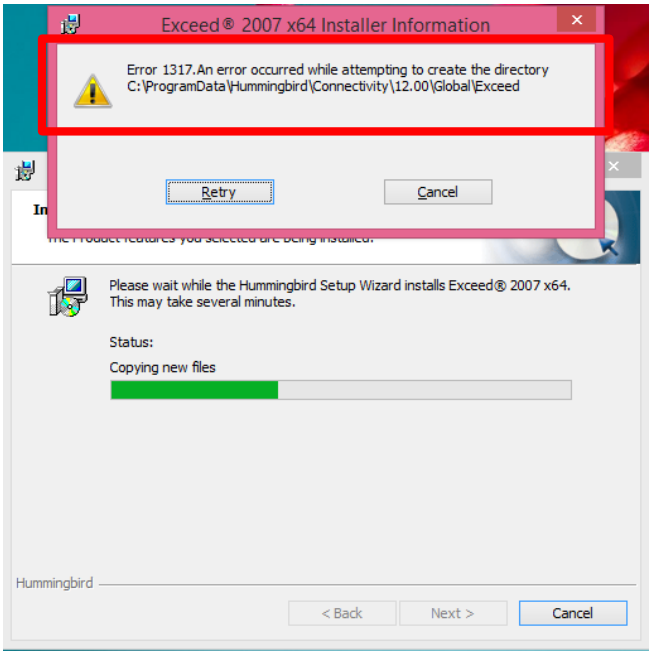
9.3 *Access denied: When installing lcmgr*

If the lcmgr (license manager) is already running on your server while installing Grid*Pro*, you might encounter an error as shown in figure below.



Solution: In such case, click on '**Ignore**' to continue the installation process.

9.4 *Exceed installation – 1317 error in Windows*



If you get "Error 1317" when you try to install exceed, it's not having permission to create the files in the respective folder. Sometimes authorization is not propagated to last sub-folder.

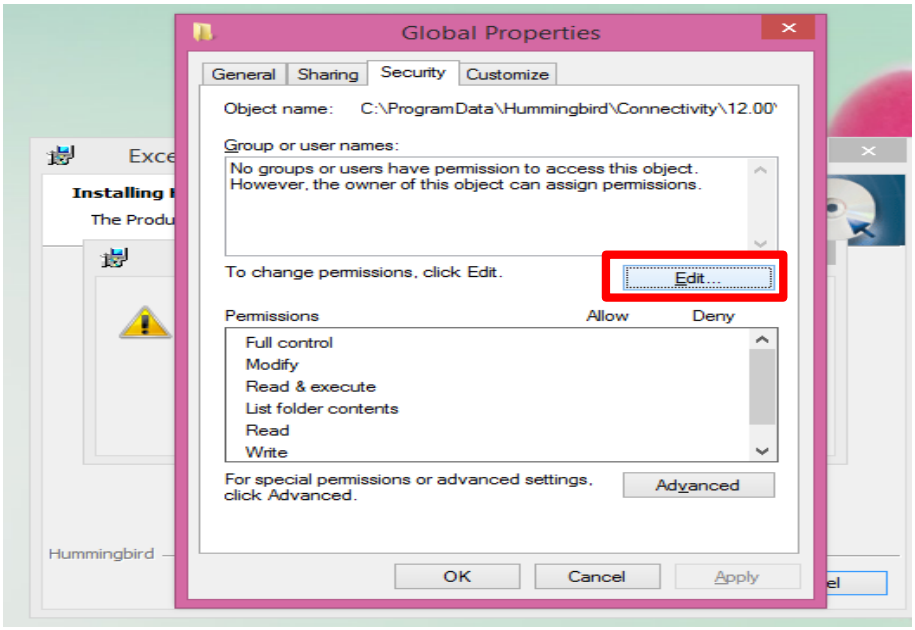
Solution:

1. Go to path **C:\ProgramData\Hummingbird\Connectivity\12.00.**

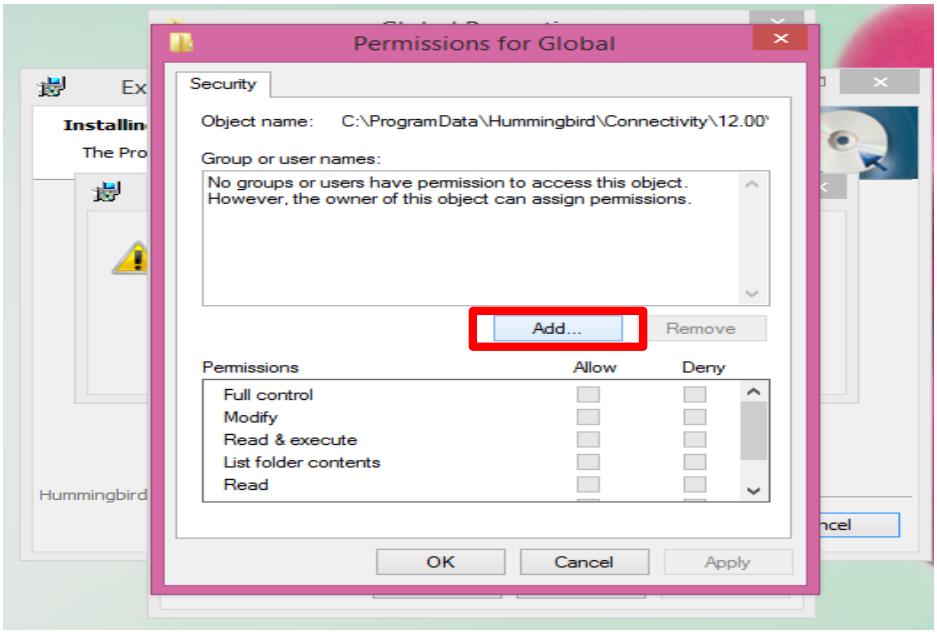
   By default **ProgramData** directory is hidden, turn on the visibility of hidden folders to access the sub-folders in it.

2. Right Click on "**Global**" directory in "**12.00**" directory and select **Properties** option.

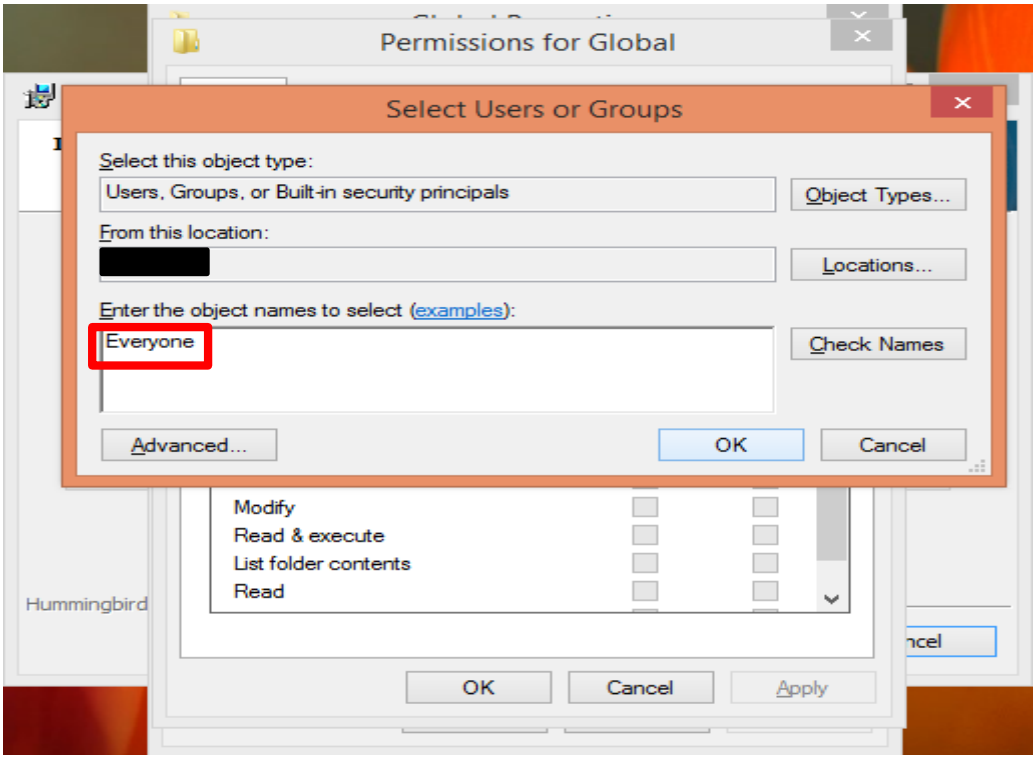
3. Switch to **Security** tab, Click on "**Edit**" to change the permissions as seen in below image.



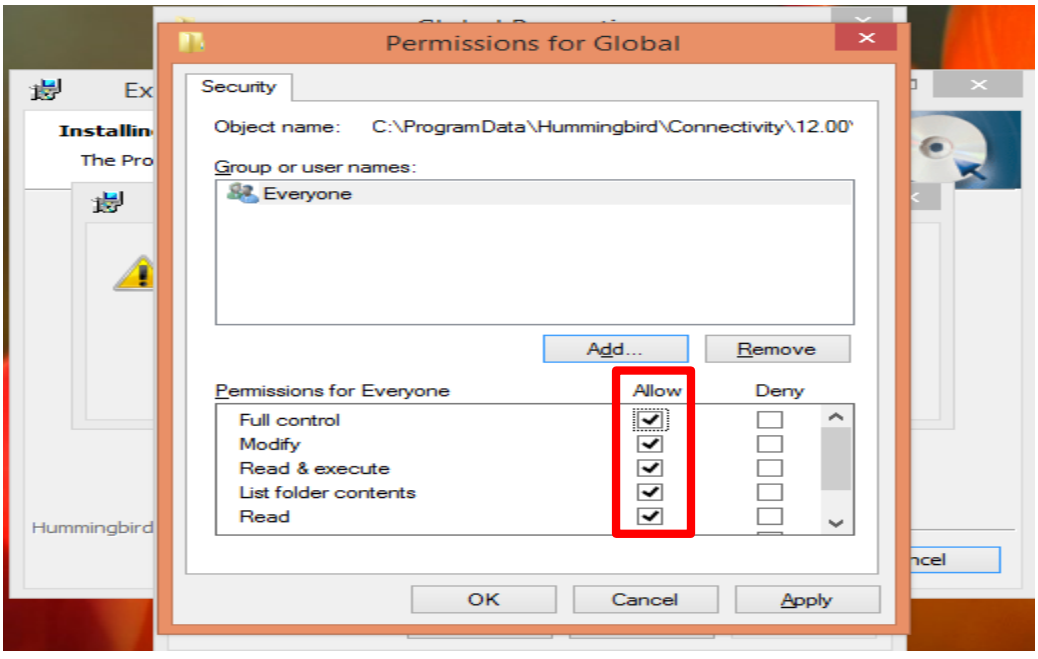
4. Click on **Add** to add the permission group in Permissions for Global window pop-up.



5. Enter **EVERYONE** in the space available to enter object name to select and click on "OK" as seen in image below. In the 'From this location' field, it should be your PC name.



6. Check the box next to **Full Control** in **Allow** menu as shown in image.

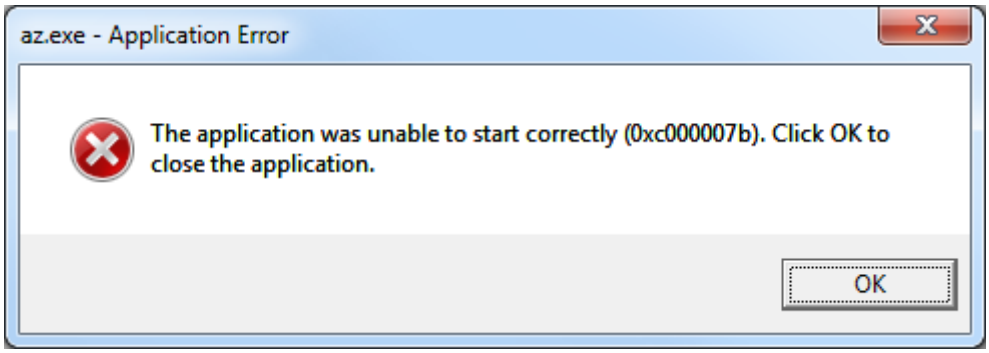


Click on **Apply** to apply the effective changes and OK to close the dialog –box.

7. Try installing Exceed, it should work fine. If in case you are prompted for permissions to install the directory in **Start Menu**, please give the permissions to **Programs**

Directory having path **C:\ProgramData\Microsoft\Windows\Start Menu\Programs** in a similar manner as given above. Select Properties option when right clicked on Programs directory. Switch to Security tab. Follow the same above procedure to change the security permissions.

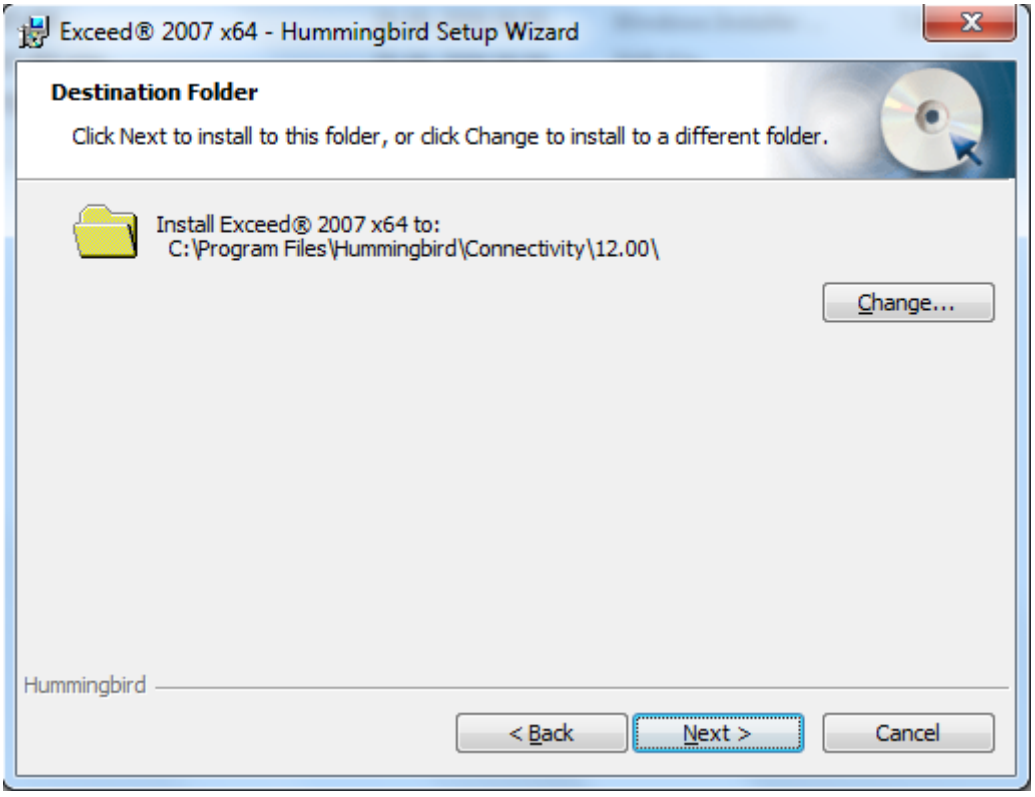
9.5 Application Error – az.exe in Windows

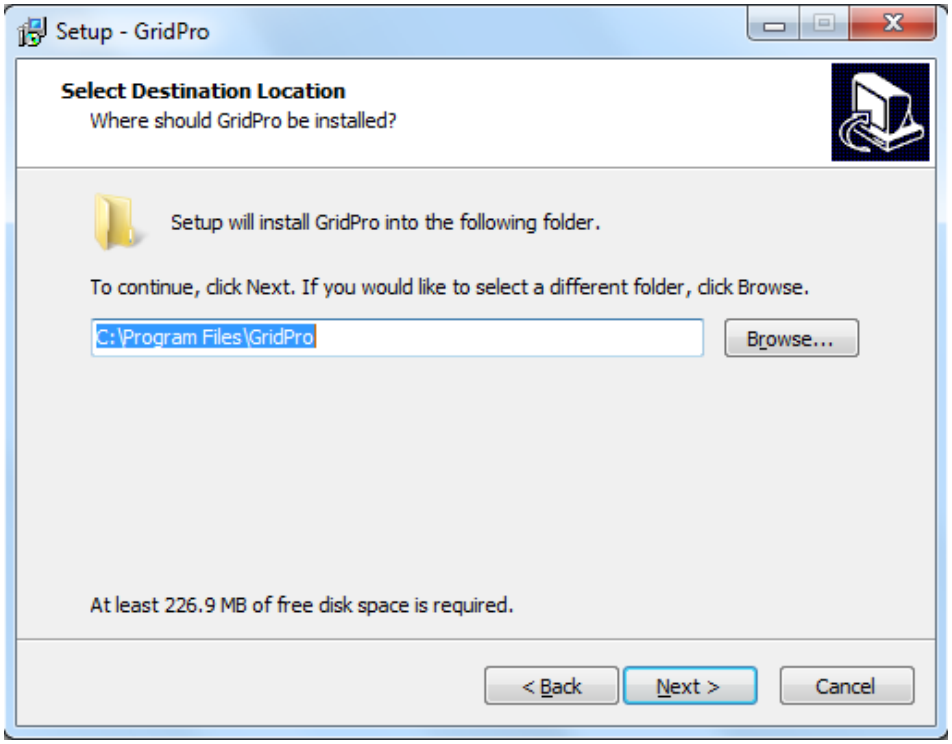


This error pops_out when you try to open the GUI of Grid*Pro*, 'az.exe'. The error is because of the difference in the architect of dll files that are called by the system and the ones that are required by the software.

Solution 1:

1. Install both the Exceed and Grid*Pro* software in the C:\Prorgram Files only.



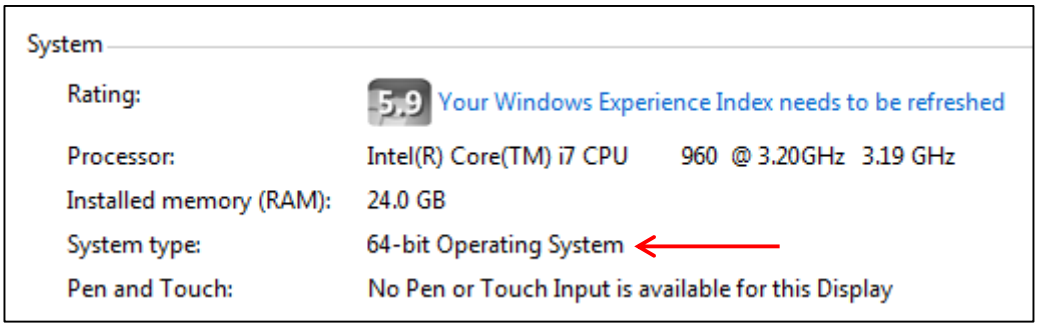


Mak sure in these two places, the destination path is set to C:\Program Files.

NOTE: The destination path should ***not*** be in C:\Program Files(x86).

Solution 2:

1. Find out the system type from the 'My computer'→properties.



2. Request the same system type software and install it.

*9.6 glibc detected *** double free or corruption: 0x0937d008:*

Solution: Add "**export MALLOC_CHECK_=0**" in the bashrc file.

Step 1: Open the /.bashrc file. It can be opened in editors such as vi or gedit by typing ***vi*** *or* ***gedit $HOME/.bashrc*** in the command line.

Step 2: Add the following line (within quotes) in the opened file and save it.

"export MALLOC_CHECK_=0"

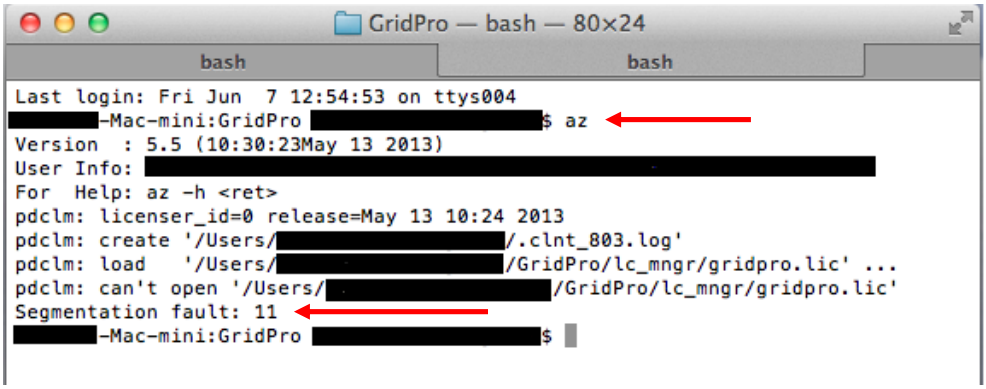
Step 3: Once it is edited, source the /.bashrc file. It can be done by typing **source $HOME/.bashrc** in the command line.

Step 4: Open Grid*Pro* GUI in a new command terminal to make the changes take effect.

The equivalent command for other shell types is:

i. **setenv MALLOC_CHECK_ 0** in $HOME/.tcshrc file for tcsh shell
ii. **set MALLOC_CHECK_=0** in $HOME/.cshrc file for csh shell

9.7 Segmentation fault 11 in MAC(az)

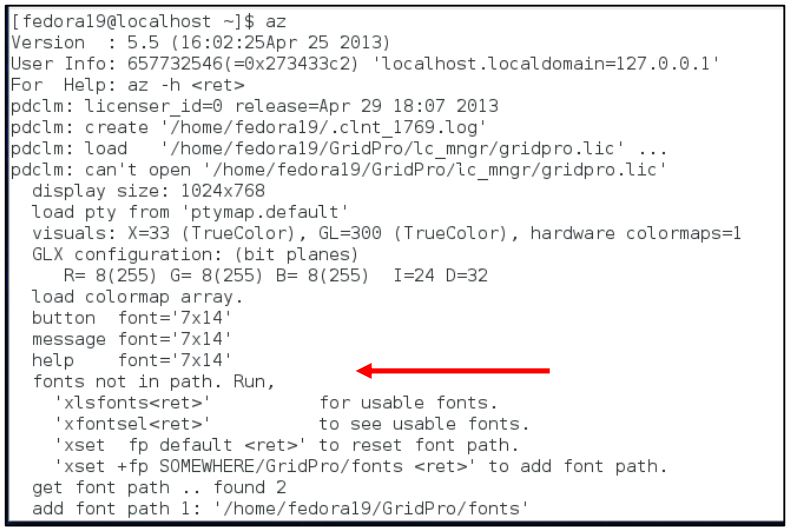


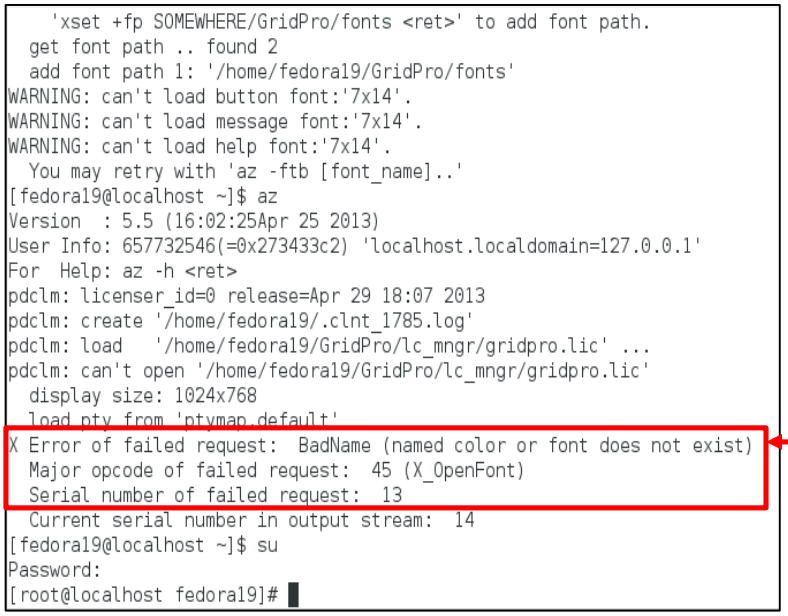
Solution: Install '**X11.app**' library.

It can be downloaded from the following link: http://xquartz.macosforge.org/trac

9.8 Fonts not in path – Linux Distribution and

9.9 X error of failed request: badname (named color or font doesn't exist)





Solution for 8 & 9: Install "**xorg-x11-fonts-misc**"

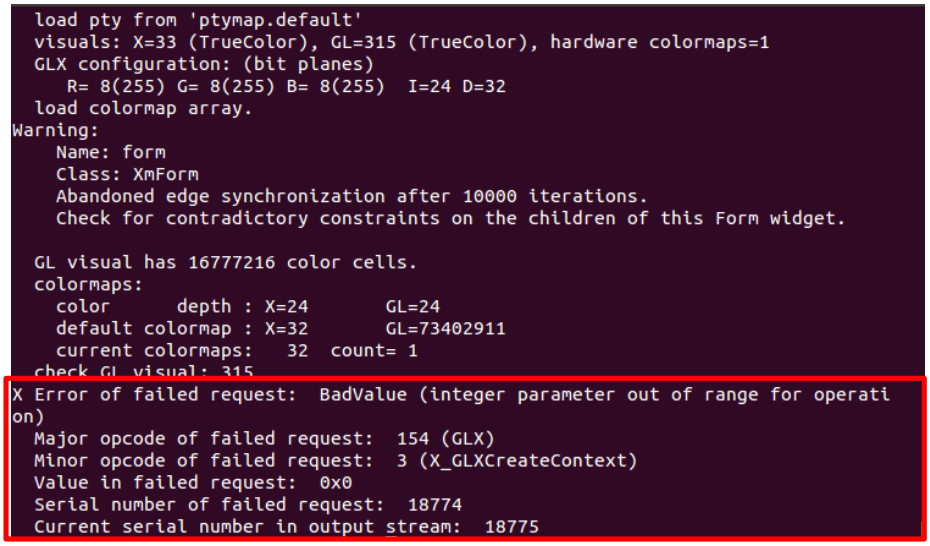
Step 1: Type '**su**' in the command terminal and enter the admin password to enable the super user.

Step 2: Type "**yum install xorg-x11-fonts-misc**" to install the necessary software to resolve this error.

NOTE: For *cent OS*, type "**yum install xorg-x11-fonts-Type1 xorg-x11-fonts-misc**" to install the necessary software to resolve this error.

*The solution shown here is for fedora 19 and cent OS, for other linux distributions find the appropriate x11 package and install it.

9.10 X error of failed request: badvalue (integer parameter out of range for operation)



This occurs when the existing Xorg-X11-Xserver (version 1.16 & above) is not compatible with the libraries provided with the software.

Solution: Install virtual GL by running,

python $GRIDPRO/contrib/virtualgl.py

9.11 RPC unknown host

This can occur on two cases. One while using float license and the other while using snode. For both the cases, you need to run 'lcmgr' from the host machine.

Case 1: Float license

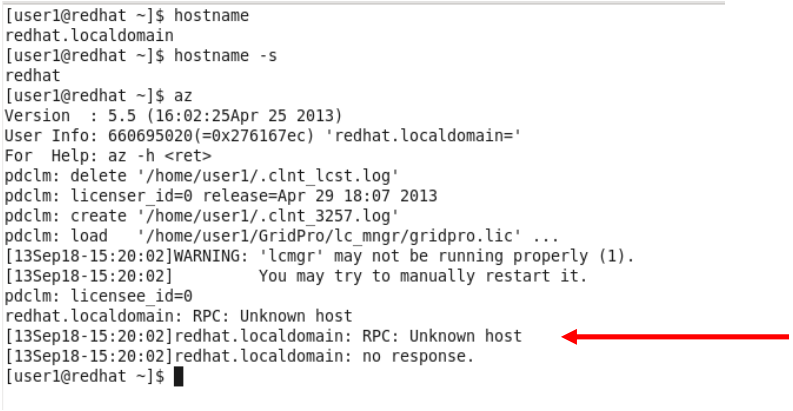


Figure: Client machine details

Solution: Add hostname to hosts file in the client machine.

Step 1: Open the hosts file of the client machine in a text editor by typing,

sudo gedit /etc/hosts

For windows users, you can open a text editor like a notepad as administrator (Right click on notepad and select Run as administrator) and then edit the hosts file located at 'C:\Windows\System32\drivers\etc'

Step 2: Add the host name info of your machine in the hosts file and save it. For eg.: "**192.168.0.100 User1-PC**" for this case.

```
# hosts         This file describes a number of hostname-to-address
#               mappings for the TCP/IP subsystem.  It is mostly
#               used at boot time, when no name servers are running.
#               On small systems, this file can be used instead of a
#               "named" name server.
# Syntax:
#
# IP-Address  Full-Qualified-Hostname  Short-Hostname
#

192.168.0.100  User1-PC
127.0.0.1      redhat.localdomain

# special IPv6 addresses
::1             localhost ipv6-localhost ipv6-loopback

fe00::0         ipv6-localnet

ff00::0         ipv6-mcastprefix
ff02::1         ipv6-allnodes
ff02::2         ipv6-allrouters
ff02::3         ipv6-allhosts
```

Host machine info

Client machine info

Case 2: Snode license

Solution: Add hostname to hosts file in the server machine.

Step 1: Open the hosts file of the server machine (where the license needs to be run) in a text editor by typing,

sudo gedit /etc/hosts

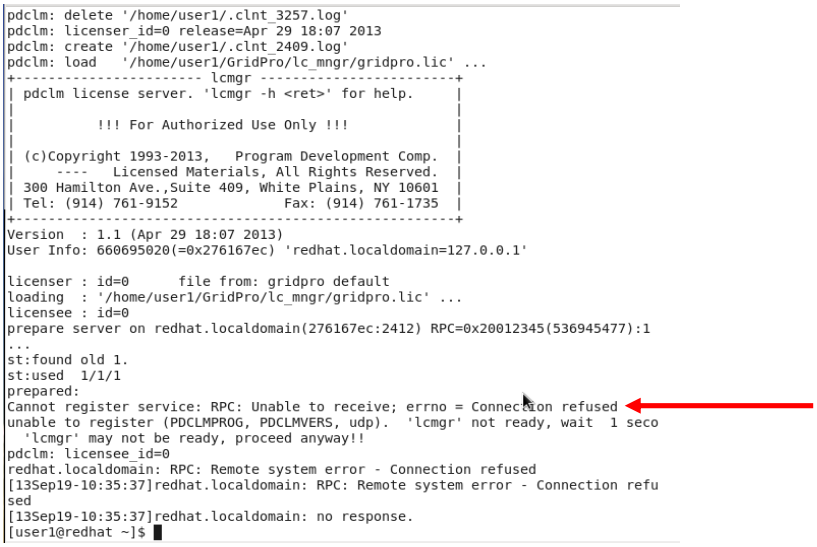
For windows users, you can open a text editor like a notepad as administrator (Right click on notepad and select Run as administrator) and then edit the hosts file located at 'C:\Windows\System32\drivers\etc'

Step 2: Add the host name info of your machine in the hosts file and save it. For eg.: "**127.0.0.1 redhat.localdomain**" for this case.

```
#
# hosts         This file describes a number of hostname-to-address
#               mappings for the TCP/IP subsystem.  It is mostly
#               used at boot time, when no name servers are running.
#               On small systems, this file can be used instead of a
#               "named" name server.
# Syntax:
#
# IP-Address  Full-Qualified-Hostname  Short-Hostname
#

127.0.0.1       redhat.localdomain

# special IPv6 addresses
::1             localhost ipv6-localhost ipv6-loopback

fe00::0         ipv6-localnet

ff00::0         ipv6-mcastprefix
ff02::1         ipv6-allnodes
ff02::2         ipv6-allrouters
ff02::3         ipv6-allhosts
```

Server machine info

9.12 *Cannot register service: RPC: Unable to receive*



Error Message: RPC: Unable to receive; errno = Connection refused. unable to register (PDCLMPROG, PDCLMVERS, udp)

Solution: For Linux/mac users, Start rpcbind manually as follows.

Step 1: Type '**su**' in the command terminal and enter the password to enable the super user.

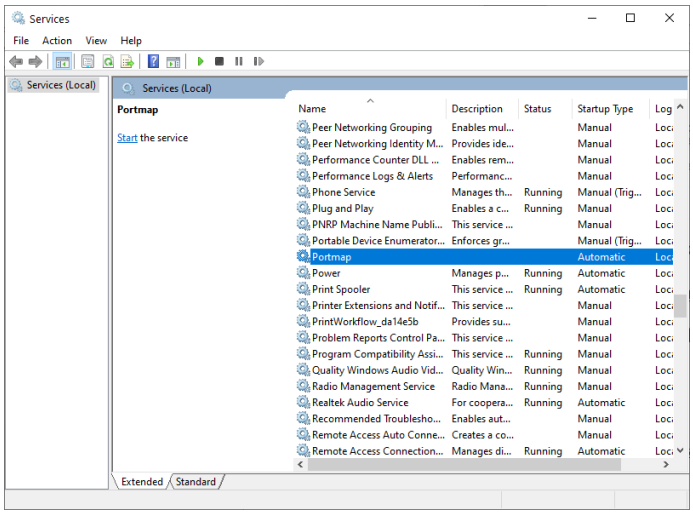
Step 2: Start the rpcbind service by typing,

sudo service rpcbind start

Step 3: Verify whether the rpcbind is active

sudo service rpcbind status

For Windows users, Start portmap services manually as follows.



Step 1: Open '**services**' window as an administrator.

Step 2: Search for '**Portmap**' services and start it manually as shown in the image below.

9.13 Cannot register service: RPC Authentication error:why - client credential too weak

Solution: Start rpcbind with -i option.

Step 1: Stop the rpcbind service by typing,

sudo -i service rpcbind stop

Step 2: Start the rpcbind with -i option

sudo -i rpcbind -i –w

9.14 Found another server

Error Message: Found another server on <Host name> <Mac id>

Solution: Kill the existing lcmgr running on the same network.

Step 1: Find the process id of lcmgr on the machine where it is running,

ps -e | grep lcmgr

Step 2: Kill the existing lcmgr using the command,

kill -9 <process id>

*The process id will be the number in the first column of the grep output.

Step 3: Start lcmgr again.

9.15 UDP port bind failed

Error Message: UDP port bind failed!

Reason: Input port number is already in use.

Solution: Use different port number

Step 1: Enter a different port number while running lcmgr.

lcmgr –p <Port number>

9.16 RPC: Remote system error – 10061

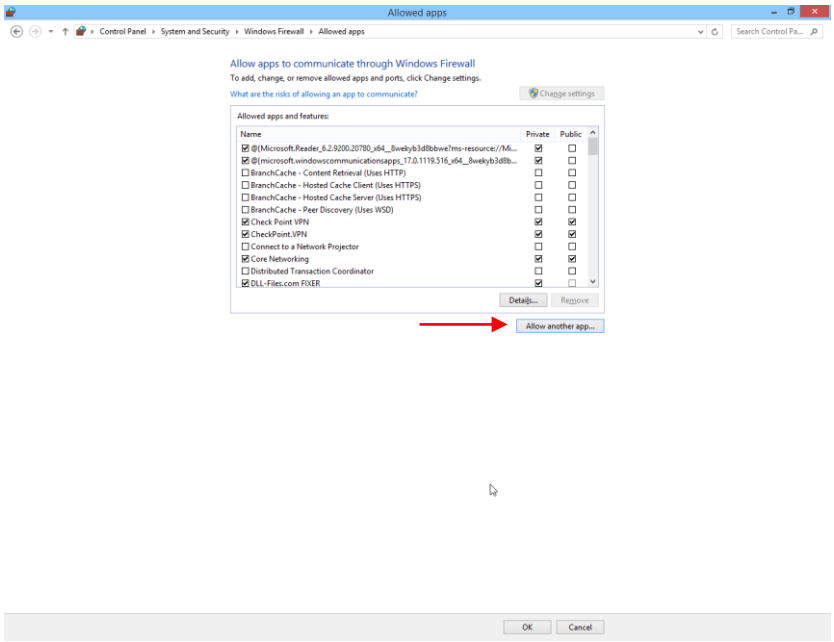
Error Message: RPC: Remote system error – 10061, RPC: no response

Reason: Windows firewall has blocked the portmap.

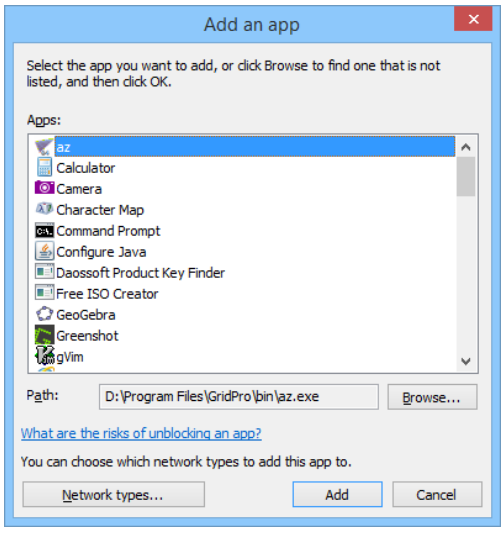
Solution: Allow portmap in firewall

Step 1: Find the ‘portmap.exe’ location. It should be either in "C:\WINDOWS\SYSTEM" or "C:\WINDOWS\SYSTEM32").

Step 2: Go to Control panel → System and security → Windows firewall → Allow an app or feature through windows firewall → Allow another app.



Step 3: Add portmap.exe by clicking on Browse and navigate it based on step 1.



9.17 Linux OS installation – General Note

In every Linux based OS, there would be few libraries missing, which are required for GridPro to work. These missing libraries will be notified at the end of the installation(After executing ‘install.sh’ file) as shown in figure below.

```
Your license info is saved at '/home/osboxes/GridPro/lc_mngr/lcst_info.txt'.
To obtain a license, please login to your GridPro account at http://www.gridpro.
com/me and enter the lcst info at the license request page.
Or you can send it to license@gridpro.com
------------------------------------------------------------------
No. of missing libs (az)  : 2
libXp.so.6
libXm.so.4
No. of missing libs (ws)  : 1
libpng12.so.0
IMPORTANT!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
Please install the missing package(s).
libXp-1.0.2-2.1.el7.i686 , using the command "yum install libXp-1.0.2-2.1.el7.i6
86 "
motif-2.3.4-7.el7.i686 , using the command "yum install motif-2.3.4-7.el7.i686 "
libpng12-1.2.50-6.el7.i686
libpng12-1.2.50-7.el7_2.i686 , using the command "yum install libpng12-1.2.50-6.
el7.i686
libpng12-1.2.50-7.el7_2.i686 "
Error: No matching Packages to list
IMPORTANT!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
Please install the fonts package xorg-x11-fonts-misc.noarch with the command "yu
m install xorg-x11-fonts-misc.noarch"
```

Please install these libraries to proceed further.

9.18 RPC: Portmapper Failure – RPC Timed out

```
pdclm: load   'D:\Program Files\GridPro/lc_mngr/gridpro.lic' ...
pdclm: licensee_id=0
[16Apr15-09:23:39]User1-PC: RPC: Port mapper failure - RPC: Timed out
[16Apr15-09:23:39]User1-PC: no response.
```

Reason 1: This error occurs in client machine which runs on serve node or float license. The license file may be correct but the IP address mentioned in the hosts file would be wrong.

For E.g: The IP address in the hosts file is "***192.168.2.7 User2-PC***" but the IP address in User2-PC might have changed due to network problems. In such cases, when you run ws or az, it will report the above mentioned error message.

Solution: Enter the right IP address in the hosts file.

Step 1: Note the IP of the host machine

Step 2: Open the hosts file in the client machine

Windows Users: /Windows/system32/drivers/etc/hosts → Copy it to the desktop to edit the file

Unix Users: sudo gedit /etc/hosts

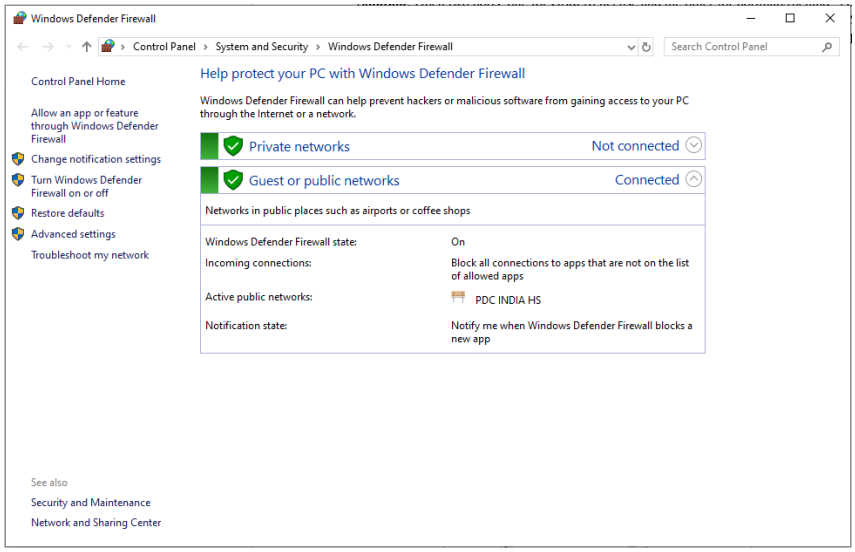
Step 3: Enter the current IP address of the host machine and save it

Step 4: Replace the old file with the modified file (For windows users)

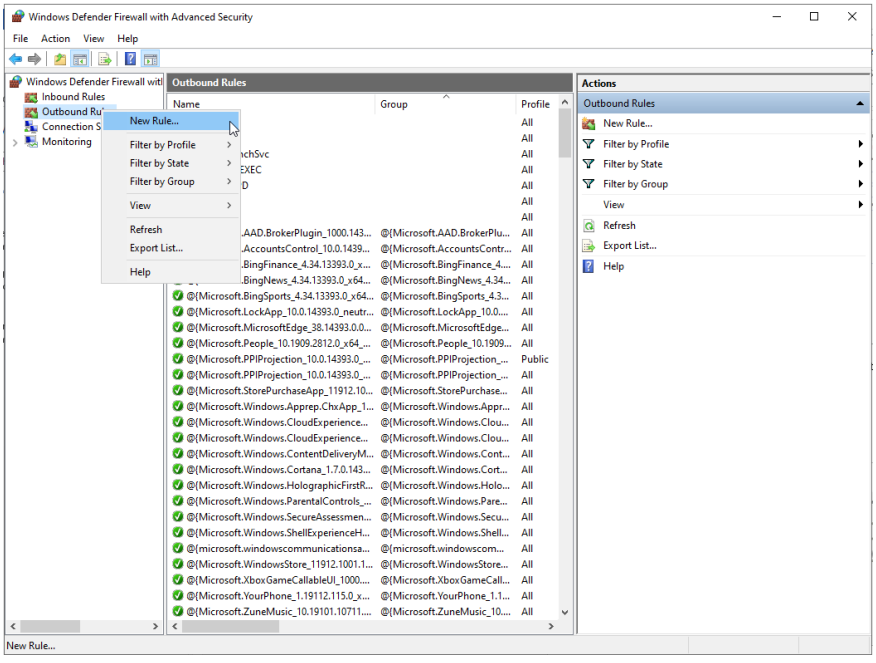
Reason 2: This error occurs in client machine which runs on serve node or float license. This message may appear, when you try to run WS in the client machine with the firewall ON on Host machine. This is because the port number for the license and portmapper may not be opened to pass via firewall.

Solution: Open two ports, one for GridPro license and the other for portmap/rpcbind. You can manually permit a program to access the internet by opening a firewall port for both TCP and UDP. You will need to know what port it uses and the protocol to make this work. Following are the steps to follow in Windows OS:

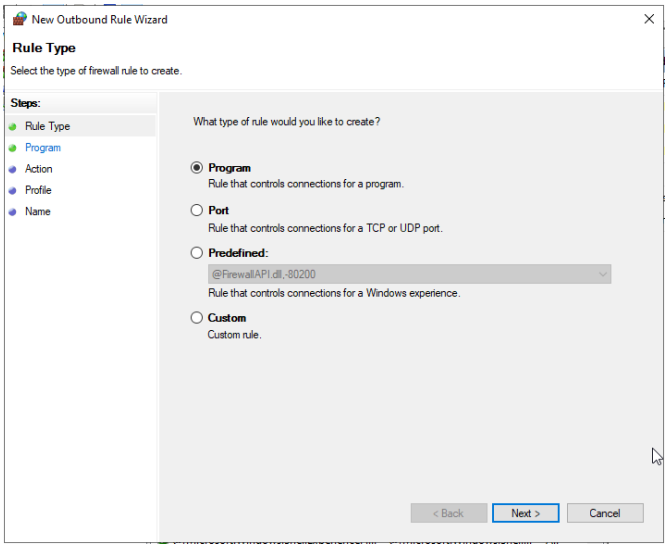
1. Navigate to Control Panel, System and Security and Windows Defender Firewall.



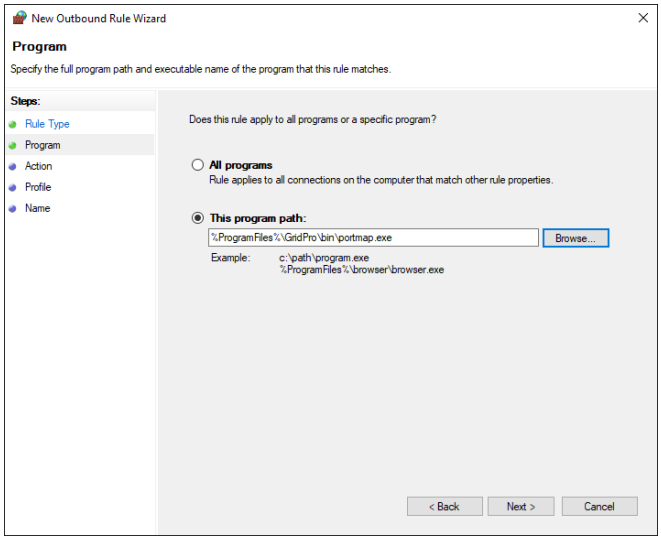
2. Select Advanced settings and highlight Outbound Rules in the left pane.
3. Right click Outbound Rules and select New Rule.



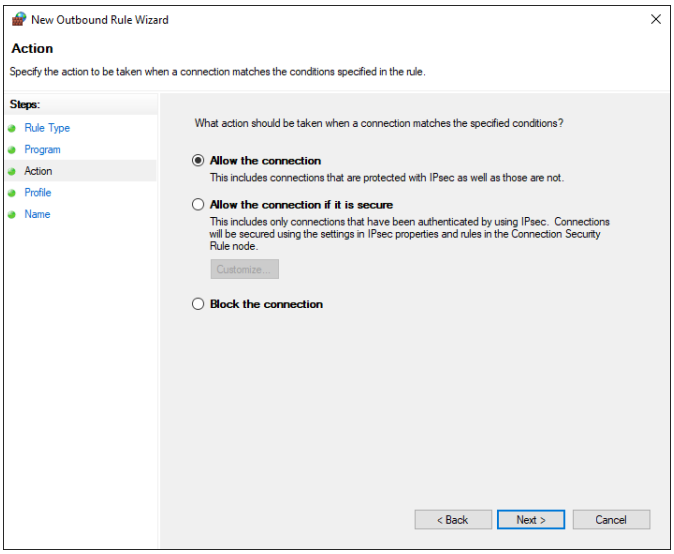
4. Select ‘Program’ and click Next.



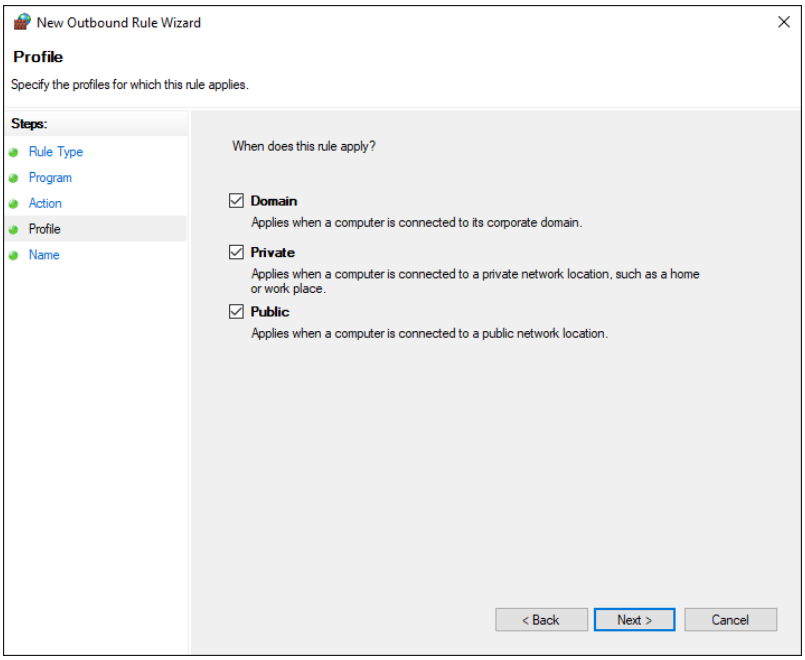
5. Select the portmap.exe from GridPro/bin installation directory and hit Next.



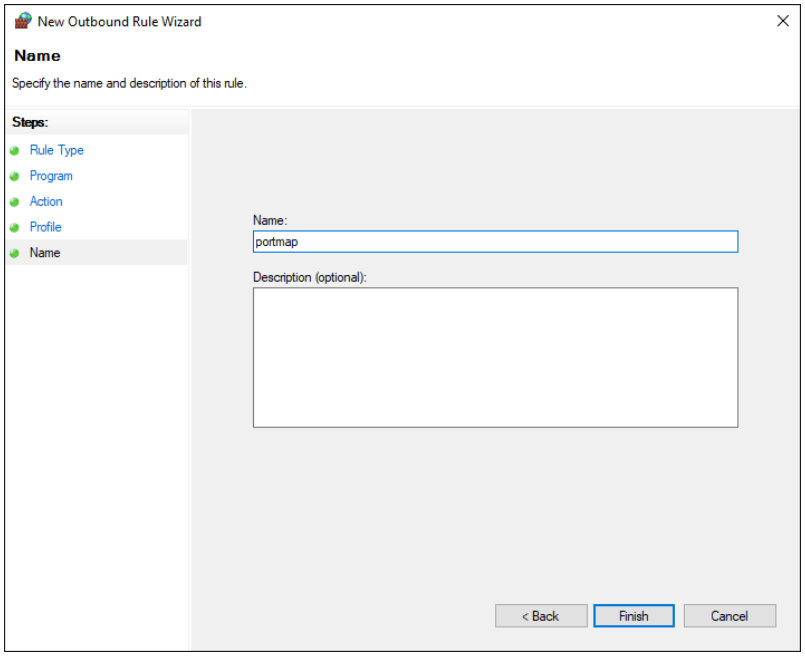
6. Select Allow the connection in the next window and hit Next.



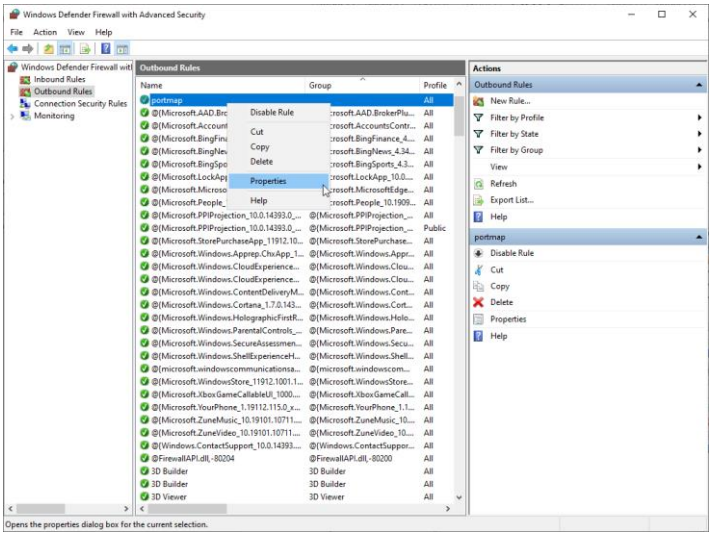
7. Select the network type as you see fit and click Next.



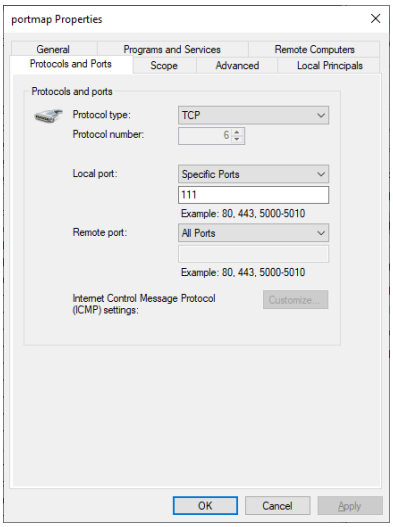
8. Name the rule something meaningful and click Finish.



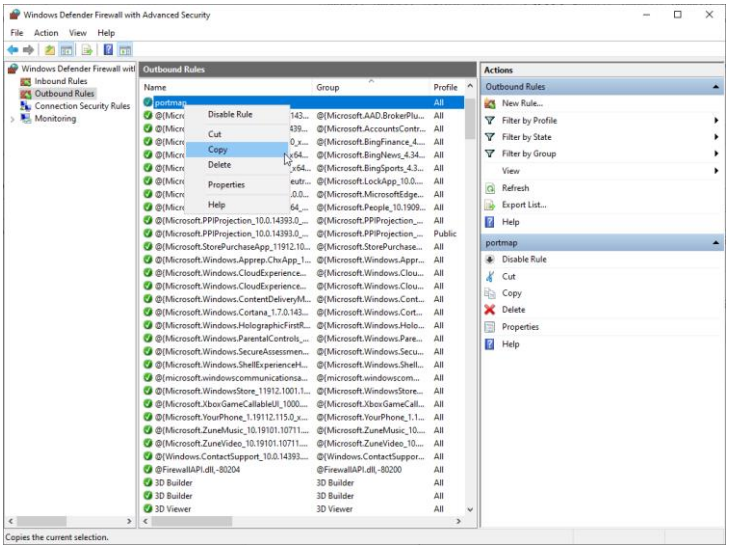
9. Note that this rule is common for all protocols, but we need to make it specific for TCP and UDP for a specific port. So go back to the firewall window and right click on the portmap rule which we created in the previous step and select properties.



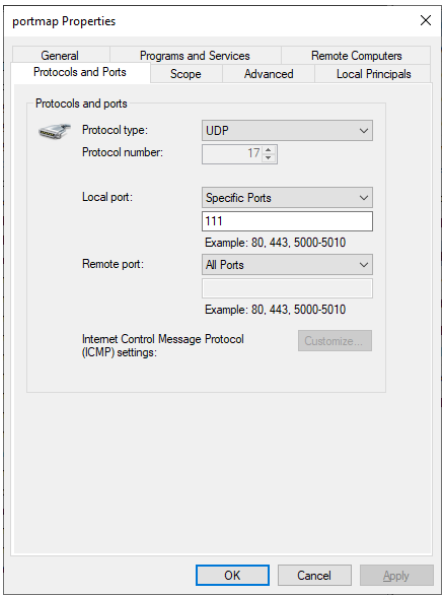
10. Change the protocol type to TCP and select specific port under Local port and enter 111 as port number.



11. Next we need to create one more rule for UDP, copy and paste the portmap rule.



12. Change the protocol type to UDP and specify the port number a 111.



You have now opened a firewall port for portmap with port number 111 for protocols TCP & UDP in Windows 10! Similarly open another port with a desired port number for license manager with both protocols (TCP & UDP). The lcmgr.exe can be found in GridPro/bin installation directory.

Now you have created 4 rules(TCP & UDP for lcmgr & portmap) under 'Outbound Rules'. Similarly create the same 4 rules under 'Inbound Rules' also.

For Ubuntu:

For opening: sudo ufw allow <port no.>

To verify if it is open: sudo ufw status verbose

For RHEL:

For opening: firewall-cmd --zone=public --add-port=<port number>/tcp --permanent

To verify if it is open: run firewall-cmd –reload and then iptables-save | grep <port number>

Note that two ports have to be opened, one for license and the other for portmap(default-111) for both protocols, TCP and UDP.

9.19 WS lagging in LINUX virtual machines

Sometimes you may experience that WS is lagging a lot and cursor selections are not working as expected. This is because virtualbox uses a software rendering instead of direct hardware rendering.

Solution: Install VirtualGL as explained in section 9.10 and set the following environmental variables in the .bashrc file.

export LIBGL_ALWAYS_SOFTWARE=1
export GALLIUM_DRIVER=softpipe
alias ws="vglrun ws"

9.20 Symbol look up error; WS: undefined symbol

This error generally occurs for the following scenarios,

i. If the installation directory does not have read/write permissions.
ii. If the software is installed as root.

Solution: Navigate the terminal path to the following,

$HOME/GridPro/lib

Run the following command and send the output to customerassistance@gridpro.com.

ls -lh

9.21 Error: env PDC_EC_NAME not defined, exit

This error generally occurs on unix machines for float and snode licenses when there is no active internet connection.

Solution: Add "**echo PDC_EC_NAME=enp4s0f2**" in the bashrc file.

Step 1: Open the /.bashrc file. It can be opened in editors such as vi or gedit by typing ***vi*** *or* ***gedit $HOME/.bashrc*** in the command line.

Step 2: Add the following line in the opened file and save it.

echo PDC_EC_NAME=enp4s0f2

9.22 RPC: Program not registered

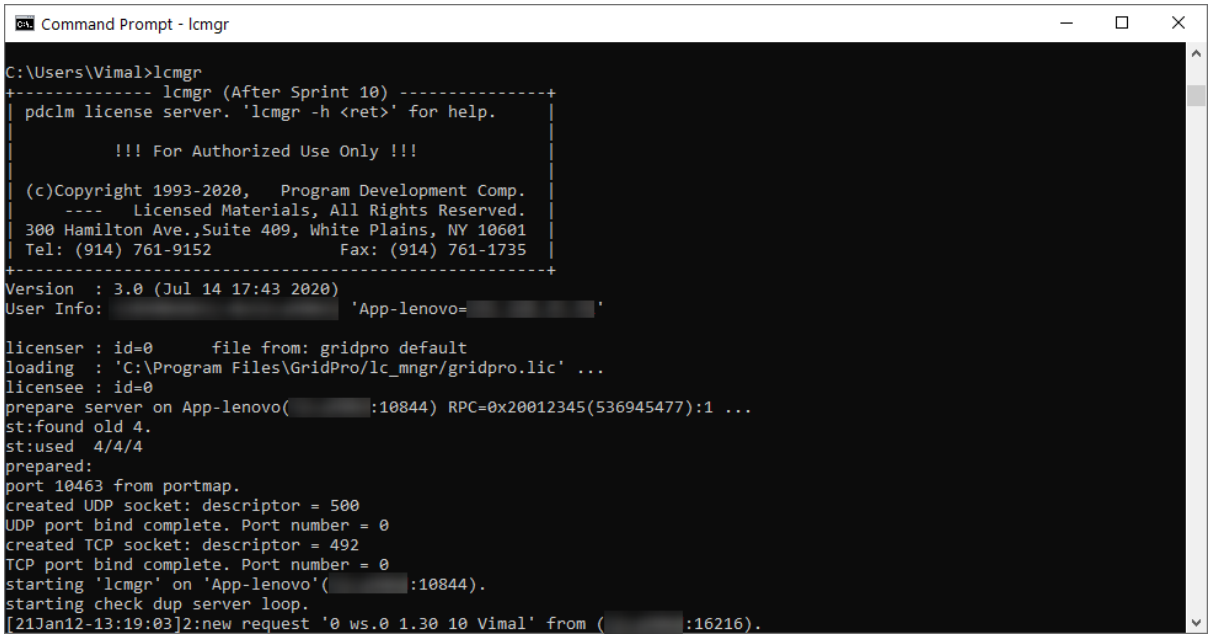
```
[21Jan12-17:42:55]App-lenovo: RPC: Program not registered
[21Jan12-17:42:55]App-lenovo: no response.
```

This error generally occurs when License Manager is not running

Solution: Run the license manager from a terminal.

Step 1: Open a command terminal

Step 2: Type '**lcmgr**' and press enter to start the license manager. If you want to start with a specific port number, then type '**lcmgr -p <port number>**'.



9.23 RPC: remote system error - No route to host

This error occurs while using float license if the ip address on the hosts file is wrong.

Solution: Check the server machine's ip address and update it correctly on the client machine's hosts file.

Step 1: Note down the ip address and hostname of the server machine.

Step 2: Open the hosts file in the client machine

Windows Users: /Windows/system32/drivers/etc/hosts → Copy it to the desktop to edit the file

Unix Users: sudo gedit /etc/hosts

Step 3: Enter the current IP address and the host name of the server machine and save it.

Step 4: Replace the old file with the modified file (For windows users)

9.24 RPC: remote system error - Connection refused

The possible reasons for this error to occur are,

1. The hostname of the machine is different from what is mentioned in the license file. **Solution:** Verify if the hostname of the machine matches the one in the license. If not, send an email to support@gridpro.com to get the correct license.

2. The ip address in the hosts file(client machine) is different from the current ip address of the server machine. **Solution:** Verify if the ip address and hostname

mentioned in the hosts file of the client machine is same as the ip address and hostname of the server machine.

3. Sometime the firewall settings might have blocked the machine from connecting to the server machine. **Solution:** Refer section 9.18.

9.25 UI crashes if anything is clicked on the workspace

This error occurs specifically on the machines which has NVIDIA graphics card. If the drivers are not updated with the latest version, then the WS GUI will crash once you click anything on the UI.

Solution: Ensure that the NVIDIA graphics card drivers are the latest ones or atleast above the following versions: Geforce driver 388.71 and Geforce Experience 3.11.0.73.