



INSTALLATION MANUAL



PRAGMADEV
modeling and testing tools

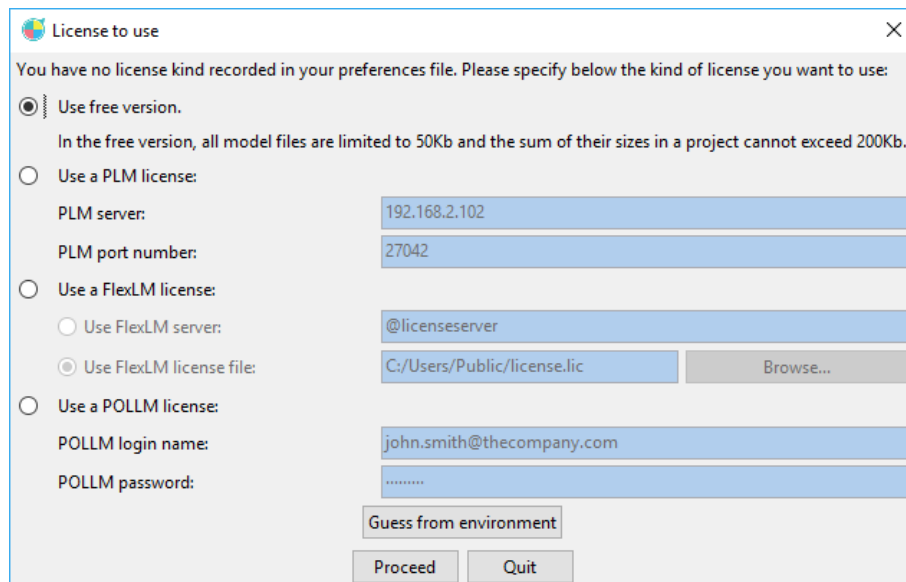
Contents

1	Introduction	3
1.1	Description	3
1.2	PragmaDev On Line License Management	4
1.3	FLEXlm architecture	6
1.4	PragmaDev License Manager	8
1.5	Tutorial	9
2	Windows installation	10
2.1	PragmaDev Studio	10
2.2	PragmaDev On Line License Management	10
2.3	FLEXlm	11
2.3.1	FLEXlm server	11
2.3.2	FLEXlm client	13
2.4	PLM	14
2.4.1	PLM server	14
2.4.2	PLM client	15
2.4.3	PLM management	17
3	Unix installation	20
3.1	PragmaDev Studio	20
3.2	PragmaDev Studio fonts	20
3.3	PragmaDev On Line License Management	21
3.4	FLEXlm	22
3.4.1	FLEXlm server	22
3.4.1.1	Production install	22
3.4.1.2	Manual launch	22
3.4.2	FLEXlm client	22
3.5	PLM	23
3.5.1	PLM server	23
3.5.2	PLM client	24
3.5.3	PLM management	25
4	Mac installation	28
4.1	PragmaDev Studio	28
4.2	PLM	30
4.2.1	PLM Server	30
4.2.1.1	Manual startup	30
4.2.1.2	Automatic startup	31
4.2.2	PLM Client	32

1 Introduction

1.1 Description

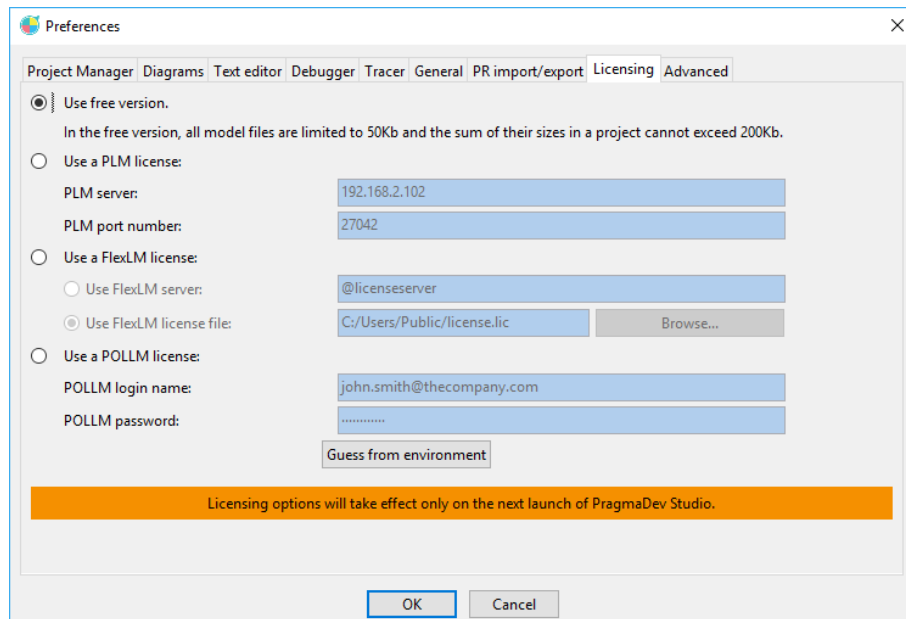
PragmaDev Studio comes with a free mode and three different license managers: FLEXlm, PragmaDev License Manager (PLM), and PragmaDev On Line License Manager (POLLM). The type of license can be selected the first time you start PragmaDev Studio:



The dialog box titled "License to use" contains the following elements:

- A message: "You have no license kind recorded in your preferences file. Please specify below the kind of license you want to use:"
- Four radio buttons for license selection:
 - Use free version.** (selected): Includes a note: "In the free version, all model files are limited to 50Kb and the sum of their sizes in a project cannot exceed 200Kb."
 - Use a PLM license:
 - PLM server: 192.168.2.102
 - PLM port number: 27042
 - Use a FlexLM license:
 - Use FlexLM server: @licenseserver
 - Use FlexLM license file: C:/Users/Public/license.lic (with a "Browse..." button)
 - Use a POLLM license:
 - POLLM login name: john.smith@thecompany.com
 - POLLM password: (masked with asterisks)
- A "Guess from environment" button.
- "Proceed" and "Quit" buttons at the bottom.

Or it can be changed later via the menu "Studio / Preferences..." in the tab "Licensing":




The following paragraphs describe FLEXlm, PLM and POLLM license managers different architectures so that you can choose which one is the best for you. Then the installation process for each platform is described in Windows installation chapter, in Unix installation chapter, and in Mac installation chapter. So pick the paragraphs depending on your target platform and the license management you are willing to use.


1.2 PragmaDev On Line License Management

As its name states POLLM is an on-line license management. The license is bought on line through PragmaDev web site and when the tool is launched the license is checked out on line. The license server is actually PragmaDev web site. This very flexible licensing allows to use the license anywhere on any computer but requires an internet connection.

In order to use such a license a member profile must be created on PragmaDev web site as presented below:


PRAGMADEV
 modeling and testing tools

[Products](#)
[Applications](#)
[Technology](#)
[Support](#)
[Company](#)
[News](#)


[Home](#) > [Members](#) > [View](#)
[Logout](#)

MEMBER PROFILE

Company: My July 26 Company
 Address: 26 July Street
 Zip: 26026
 City: Paris
 Country: France
 VAT:

First name: John
 Last name: John
 E-mail: john26@mail.com
 Phone:

Tool	Subscription	Purchased	Available
Studio	Active	1	1
Process	Not active	0	0
Specifier	Not active	0	0
Developer	Not active	0	0
Tester	Not active	0	0


[Modify profile](#)

PURCHASES


Invoice	Tool	Amount	Licenses	Purchase date	Starts	Expires
258	Studio	348	1	2019-07-26	2019-07-26	2019-08-25
259	Studio	348	1	2019-08-25	2019-08-26	2019-09-25

[Activity logs](#)
[Force release](#)
[Purchase on line](#)

Select if you want to buy at once or subscribe to a monthly payment:


PRAGMADEV
 modeling and testing tools

[Products](#)
[Applications](#)
[Technology](#)
[Support](#)
[Company](#)
[News](#)


[Home](#) > [Members](#) > [Purchase](#)
[Logout](#)

ONE TIME PURCHASE

Tool: Studio
 Number of licenses: 1
 Starting date: 03 / 09 / 2019
 Number of months: 3
 Price per months: 290
 Total excl. of VAT: 870
 Apply VAT (*): ☒ Yes ☐ No

[Buy](#)

(*): VAT is due by all individuals whatever country you live in, it is also due by French corporations, but it is not due by foreign corporations.

HISTORY

Invoice	Tool	Amount	Licenses	Purchase date	Starts	Expires
258	Studio	348	1	2019-07-26	2019-07-26	2019-08-25
259	Studio	348	1	2019-08-25	2019-08-26	2019-09-25

SUBSCRIBE

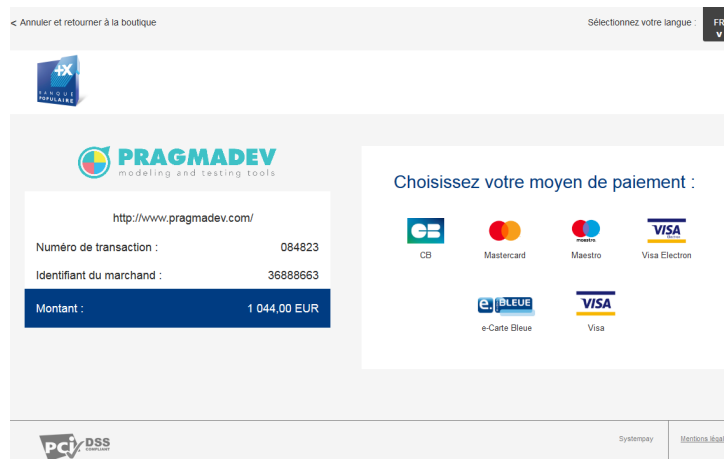
Subscription can be stopped any time. Please note any started period is fully due.

Tool: Studio
 Number of licenses: 1
 Starting date: Today
 Price per license: 290
 Total per month excl. of VAT: 290
 Apply VAT (*): ☒ Yes ☐ No

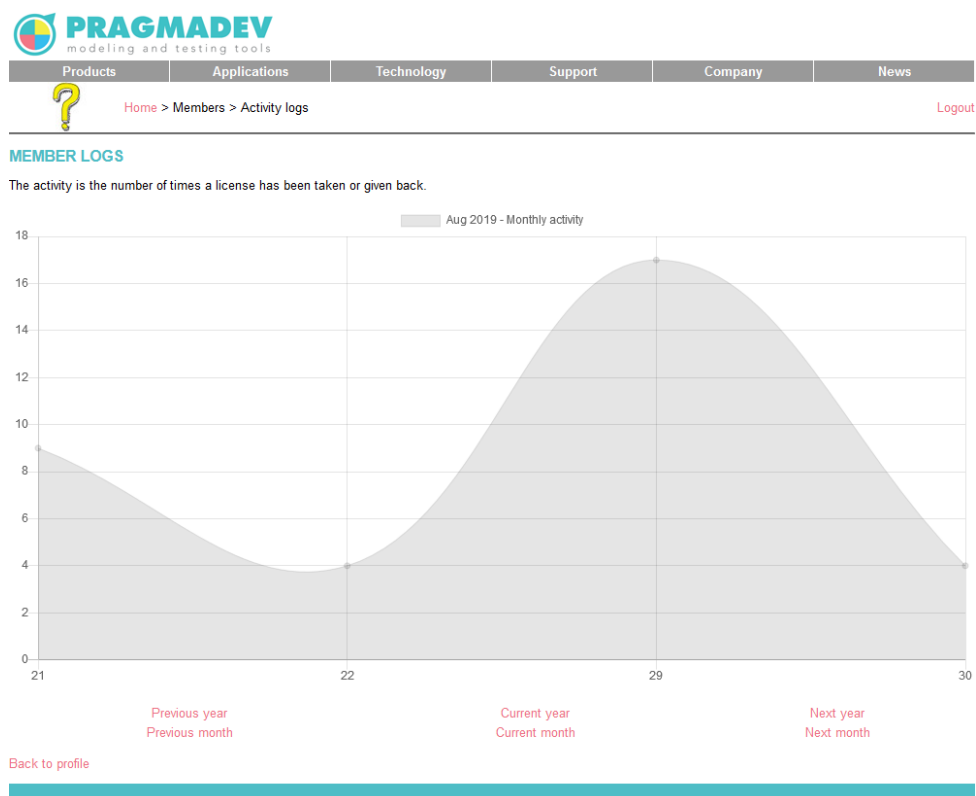
[Subscribe](#)

(*): VAT is due by all individuals whatever country you live in, it is also due by French corporations, but it is not due by foreign corporations.

And pay on line with your credit card:



An example activity log is presented below:



The login and password of the member are to be set in the tool preferences to access the license.

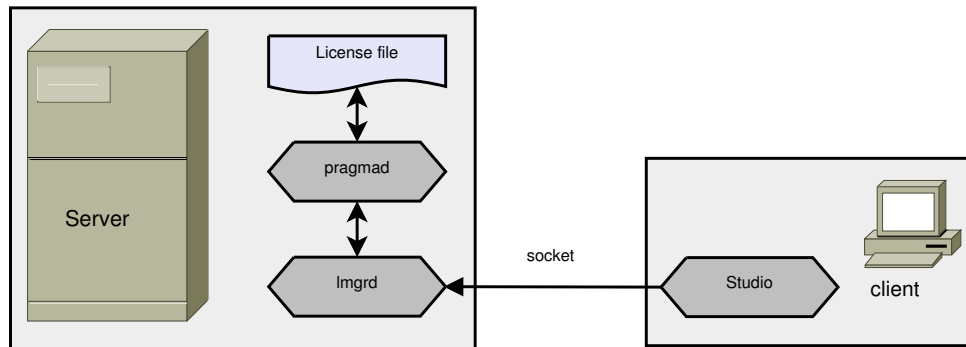
1.3 FLEXlm architecture

PragmaDev Studio uses the FLEXlm license manager version 11.5. FLEXlm license manager is based on a client-server architecture. The client is embedded in PragmaDev Studio while the server must be started separately before the client. The server is the combination of two executable files:

- lmgrd: a generic license server daemon,
- pragmad: PragmaDev specific daemon.

Please note the server and the client can be installed on the same machine.

The number of licenses for PragmaDev Studio is defined in the license file sent to you by PragmaDev. This file is read by the license server that creates a pool of available licenses. Each time PragmaDev Studio is started, a license token is requested to the license server pool. When exiting the tool the license token is given back to the pool. When there is no token left in the pool of licenses the request is refused by the server.



The license file describes the server characteristics and the available licenses:

- the SERVER line specifies the name and the hostid of the server:
SERVER hostname hostid [port number]
- the VENDOR line specifies the name of the PragmaDev daemon:
VENDOR pragmad
- the FEATURE line specifies the maximum number of simultaneous PragmaDev Studio licenses you can use as well as the version:
FEATURE studio pragmad version nbOfLicenses SIGN=licenseKey
where nbOfLicense indicates the maximum number of licenses available for PragmaDev Studio and licenseKey the unique id securing the licenses.
- one or several INCREMENT lines may be added if new licenses are purchased afterwards.

Please note only the following can be modified in the license file:

- The hostname and the port number on the SERVER line, in case your server changes name, or you want it to listen on another port than the default one;
- A "port=..." option can be added to the VENDOR line, as follows: VENDOR pragmad port=27010. This forces the client and the vendor daemon to communicate through this socket port number, the default being to use a dynamically configured port number. Use this setting if your FLEXlm server is behind a firewall and you have to configure the port numbers to open to ensure proper communication between PragmaDev Studio and the license server.

Any other modification might result in failure.

The license file which is received by e-mail, is dedicated to the computer running as a license server. If a FLEXlm license server is already installed, it is recommended to

complete the existing license file. To do so, add the VENDOR and FEATURE lines to the existing file and execute a reread with lmtools or lmutil utility.

The necessary files to install the FLEXlm license server are located in:

\$RTDS_HOME/share/flexlm/bin/<platform>

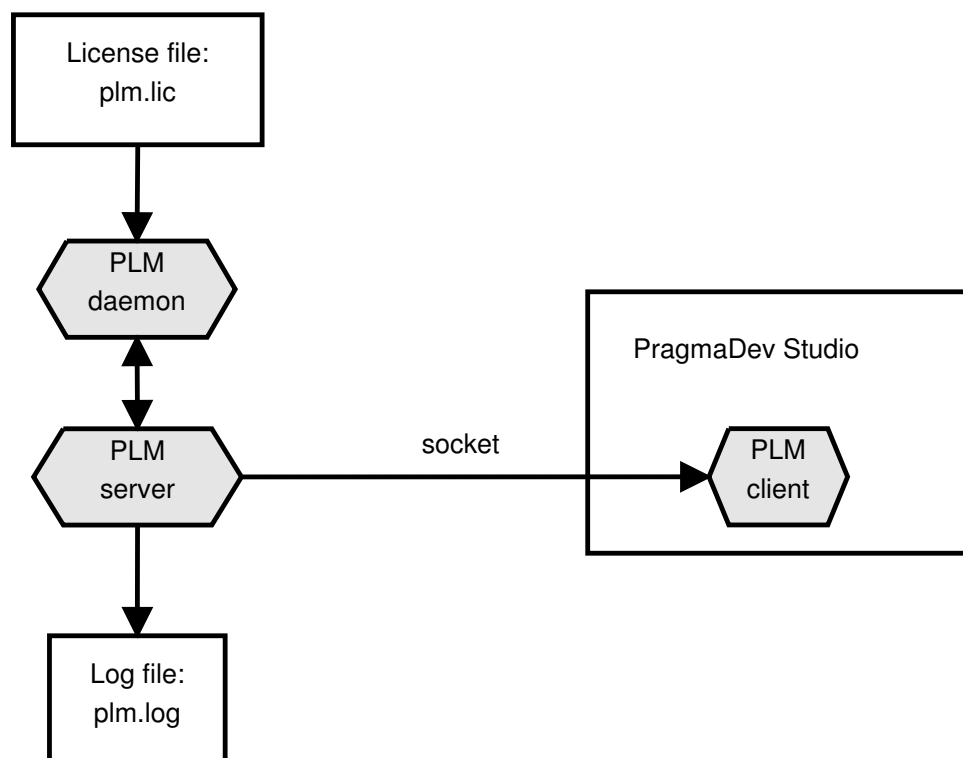
where \$RTDS_HOME is the directory where you installed PragmaDev Studio and <platform> is Windows, Linux, or macOS. The files are:

- lmgrd : generic daemon,
- pragmad : PragmaDev daemon,
- lmutil : configuration and administration tool,
- lmtools : for Windows only, to setup the license server and install it as a Windows service.

More information can be found in the FLEXlm end user manual located in the \$RTDS_HOME/share/flexlm/doc directory of your installation of PragmaDev Studio.

1.4 PragmaDev License Manager

The architecture of PLM is similar to the one of FLEXlm. There is a license server that reads the license file and starts the vendor daemons. The vendor daemons will verify the keys in the license file are valid. If all is correct the license server will create a pool of available licenses. PragmaDev Studio embeds a PLM client that connects to the PLM server. The PLM server will grant or not a license to the client.



The PLM server, PLM daemon, PLM license file, and PLM log file must be in the same directory. The names of the files are:

PLM element	File name
PLM server	sPlmServer
PLM daemon	pragmadev
PLM license file	plm.lic
PLM log file	plm.log

The PLM server and the PLM client can be executed on the same computer. Communications between the different modules is done through sockets. The socket port number to use is defined by the environment variable `PLM_PORT_NUMBER`.

1.5 Tutorial

PragmaDev Studio comes with a tutorial we recommend to go through.

2 Windows installation

2.1 PragmaDev Studio

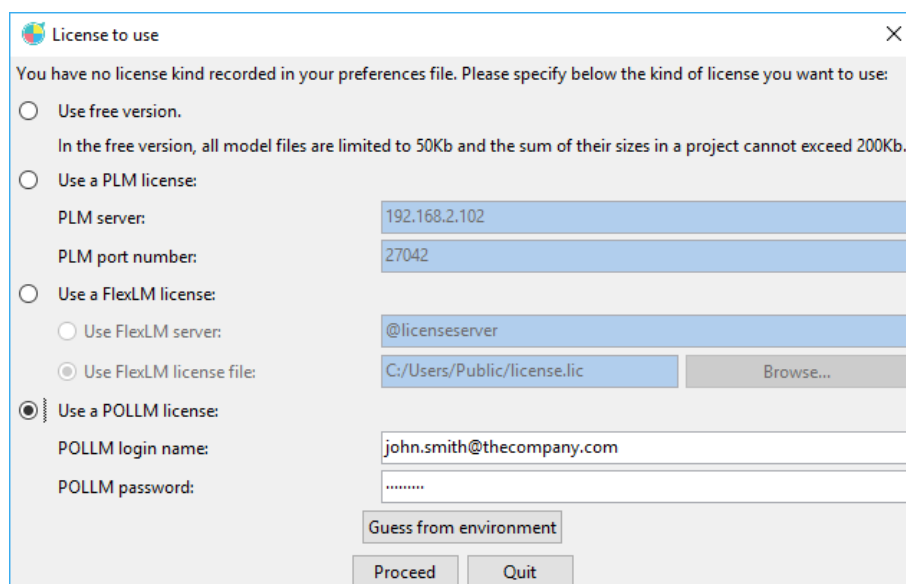
The installation is made by running setup.exe that should start automatically when the CD-ROM is inserted; if not, the installation will run by double-clicking on the executable which is located in the root directory of the CD-ROM. This setup starts an installation wizard to follow step by step. It is required to have administrator privileges in order to run the installation on Windows.

The installation program creates the RTDS_HOME environment variable to point to the installation directory and %RTDS_HOME%\bin is added to the path.

2.2 PragmaDev On Line License Management

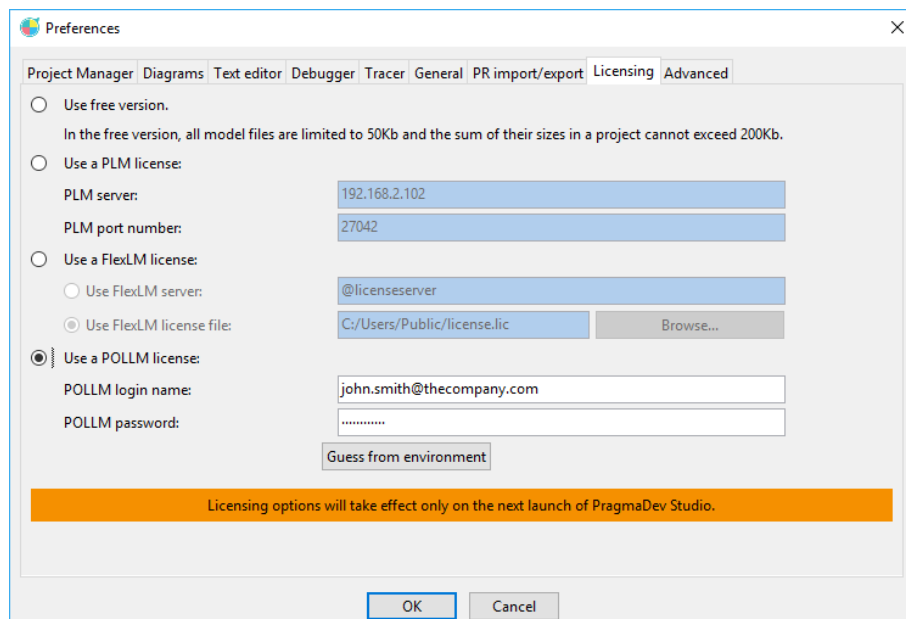
One of the license manager is based on an on-line license management. The license is bought on line through PragmaDev web site and when the tool is launched the license is checked out on line. This very flexible licensing allows to use the license anywhere on any computer.

On the client side, when PragmaDev Studio is launched, a pop windows will ask for the type of license to use:



Use the login and password used in the members area of PragmaDev web site and that's it.

This can be changed later via the menu “Studio / Preferences...” in the tab “Licensing”:

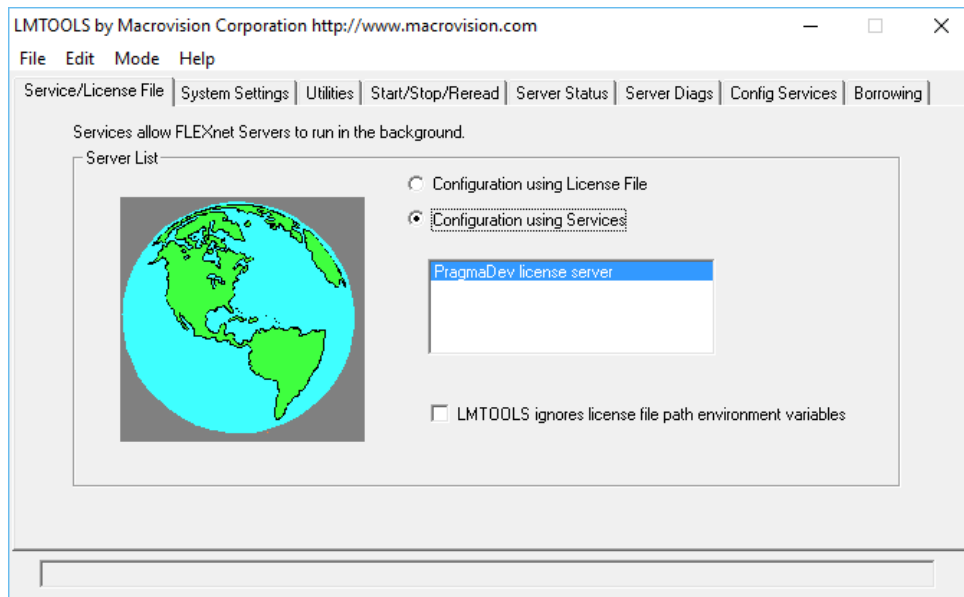


2.3 FLEXlm

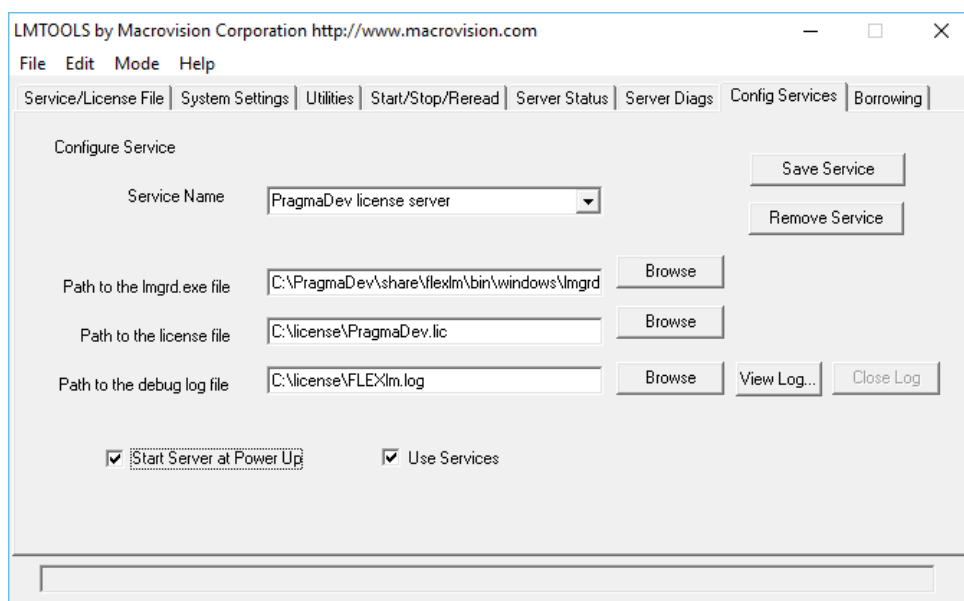
2.3.1 FLEXlm server

If possible, log in as an administrator to install FLEXlm license server as a Windows service. Otherwise, FLEXlm license server will have to be restarted each time the server is restarted.

Go to \$RTDS_HOME/share/flexlm/bin/windows directory and start lmttools from a Command Prompt as administrator (right click on the cmd.exe file and select “Run as Administrator”):



- In the “Service/License File” tab check the “Configuration using Services” radio button.
- Click the “Config Services” tab:



- In the “Service Name”, type the name of the service that will be defined, for example: PragmaDev license server.
- In the “Path to the lmgrd.exe file” field, enter or browse to the lmgrd.exe executable that was installed from the CD-ROM.
- In the “Path to the license file” field, enter or browse to the license file containing the license(s) for PragmaDev Studio.
- In the “Path to the debug log file” field, enter or browse to the debug log file. This file will contain all the debug messages from the server.

- If installation is done with administrator privilege, check the “Use Services” and the “Start Server at Power Up” boxes for a proper server installation. If installation is done with a non administrator account, the boxes can be left unchecked but the license server will have to be restarted each time the server is powered up.
- Save the new service and go to the “Start/Stop/Restart” tab.
- Click on the “Start Server” button.

2.3.2 FLEXlm client

The FLEXlm client is embedded in PragmaDev Studio application, so it is started when the application is launched.

The FLEXlm client can be configured the first time PragmaDev Studio is started:

License to use [X]

You have no license kind recorded in your preferences file. Please specify below the kind of license you want to use:

☐ Use free version.
In the free version, all model files are limited to 50Kb and the sum of their sizes in a project cannot exceed 200Kb.

☐ Use a PLM license:
PLM server: 192.168.2.102
PLM port number: 27042

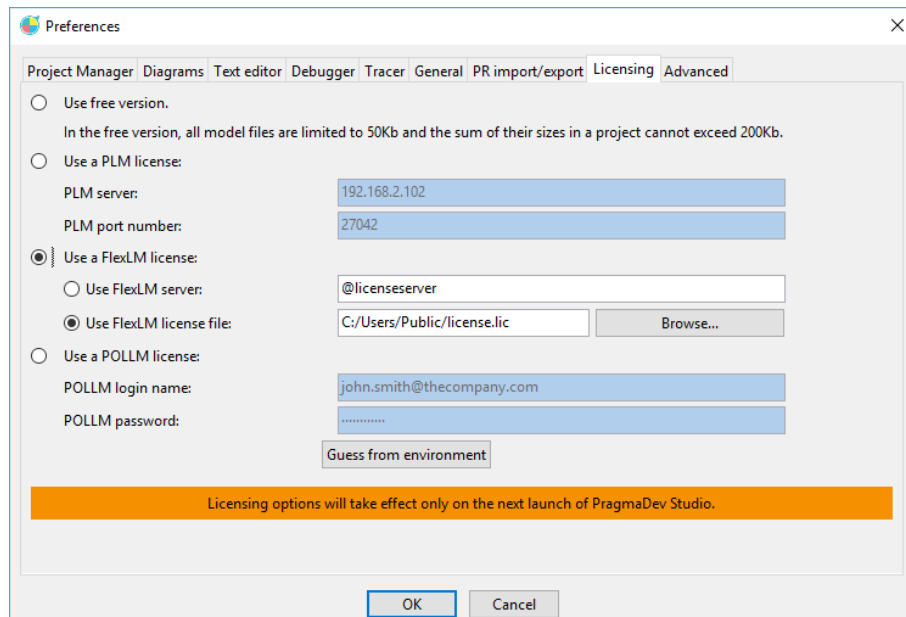
☒ Use a FlexLM license:
☐ Use FlexLM server: @licenseserver
☒ Use FlexLM license file: C:/Users/Public/license.lic [Browse...]

☐ Use a POLLM license:
POLLM login name: john.smith@thecompany.com
POLLM password: [REDACTED]

[Guess from environment]

[Proceed] [Quit]

This can be changed later via the menu “Studio / Preferences...” in the tab “Licensing”:



The client should preferably refer to the license server: @<license server name> where the license server name is the one specified on the SERVER line in the license file.

Note that if PragmaDev Studio does not work, another FLEXlm license server might be configured on the computer. To solve this problem, the new FLEXlm server must be declared by executing in a Command Prompt (as administrator) in %RTDS_HOME%/share/flexlm/bin/w

```
lmutil lmpath -add pragmad serverLocation
```

where serverLocation is the name of the server machine (e.g. @myhost), or its IP address, or the full path to the license file.

2.4 PLM

2.4.1 PLM server

All the necessary files are located in %RTDS_HOME%\share\plm\plm_server\bin\win32 directory.

The PLM_PORT_NUMBER environment variable should be defined as a system variable so that it is always defined. Its value should be set to a valid socket port number on the computer. We recommend a default value of 27042.

The license file you will receive from PragmaDev should be named plm.lic and put in the same directory.

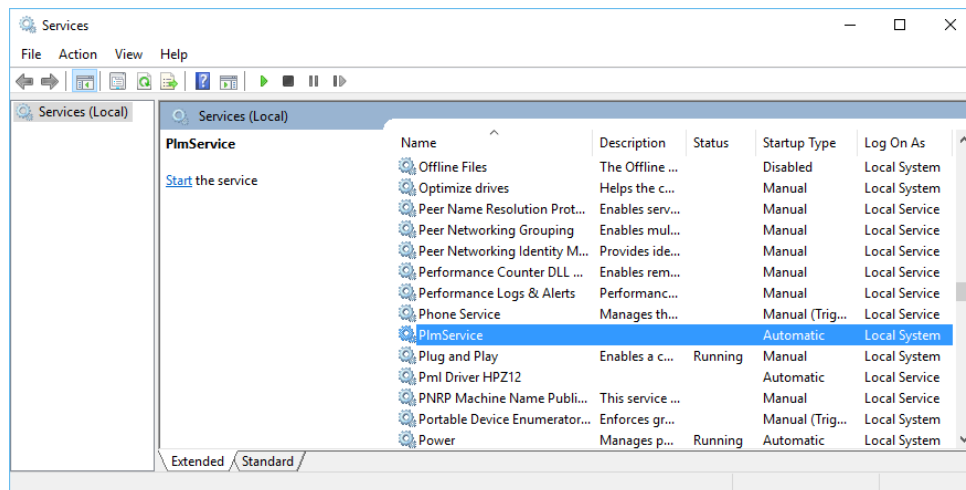
Once you have received the license file, PLM server should be installed as a Windows service so that it is started automatically when the computer boots and even if no user is logged in. The utility PlmService will install a service that will start the executables defined in PlmService.ini. Make sure the path to sPlmServer.exe is correct within that file.

Start a Command Prompt as administrator and go to the %RTDS_HOME%\share\plm\plm_server\bin\win32 directory.

To install the service, run: PlmService -i

To remove the service, run: PlmService -u

Once the service is installed, it will appear in the list of Windows services that can be accessed with the Services utility through the Control Panel, and the Administrative Tools folder:

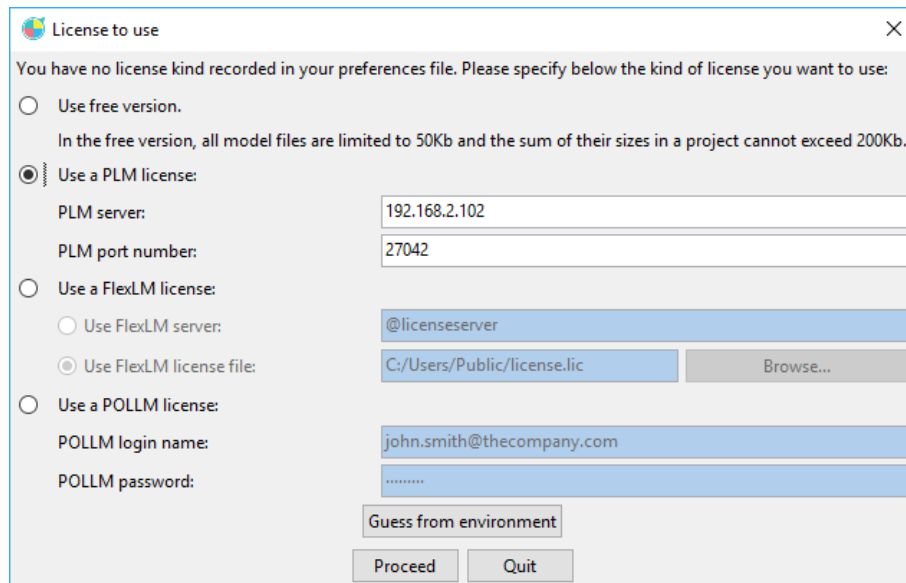


The service should be set to start automatically. As installing the service does not actually start it the first time, it is necessary to start it manually in order to check everything is fine: double click on the service and click on the start button.

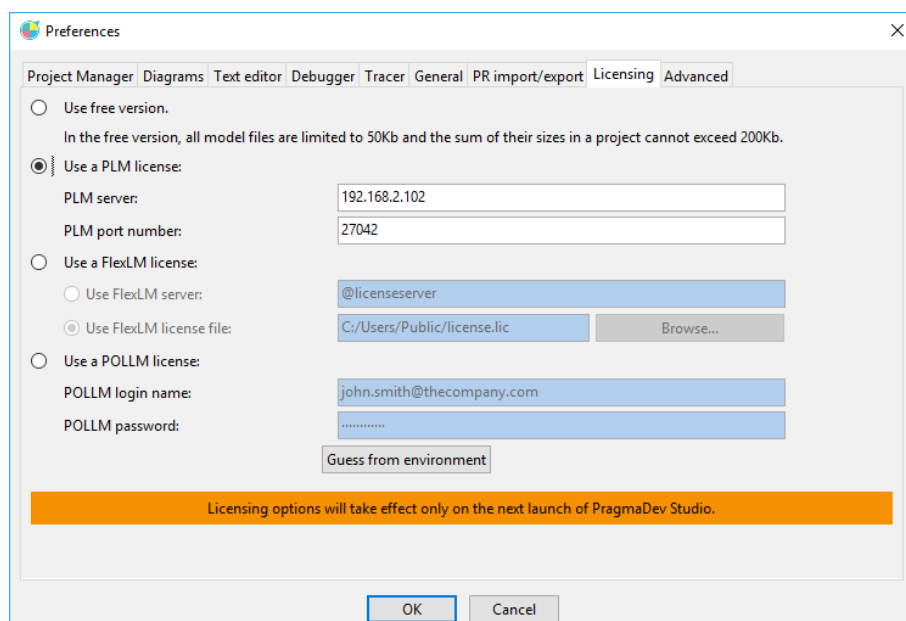
Note it is also possible to manually start the server, to do so just type: sPlmServer in the Command Prompt. In this case all the log information will also be printed in the Command Prompt.

2.4.2 PLM client

The PLM client can be configured the first time PragmaDev Studio is started:



This can be changed later via the menu “Studio / Preferences...” in the tab “Licensing”:



The “PLM server” is the server hostname or IP address and the “PLM port number” is the port number defined on the server (the `PLM_PORT_NUMBER` environment variable). The PLM client can be configured also by defining following environment variables:

- `PLM_SERVER` set to the server hostname or IP address,
- `PLM_PORT_NUMBER` set to the port number defined on the server.

If both environment variables are defined, their values will be picked up automatically when starting PragmaDev Studio the first time, or at any time via the “Guess from environment” button. Note that because name resolution is not always successful, if the hostname does not work use the IP address of the server. For example, if the license server and the client are the same computer, use `127.0.0.1` instead of `localhost`.

2.4.3 PLM management

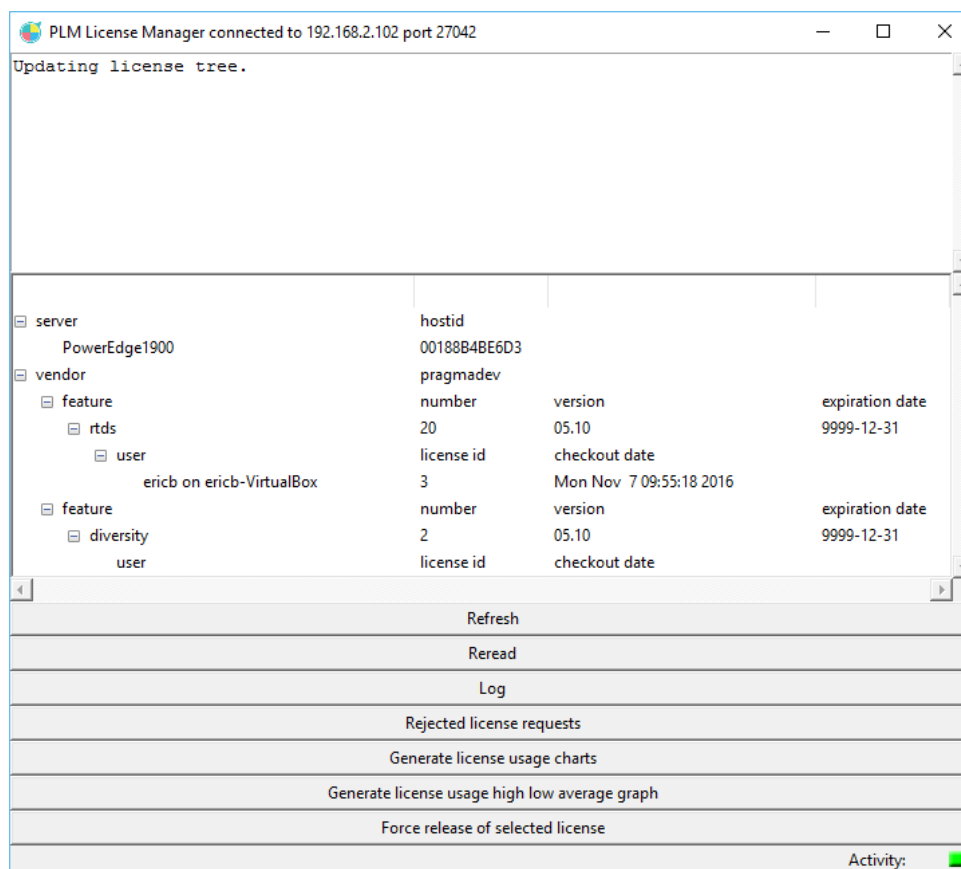
PLM includes a management tool to analyze license usage. It can be run on any computer on the network via the menu “Studio / Manage PLM licenses...” provided that a PLM licence was already configured (see “PLM client”).

Another way is to run

```
%RTDS_HOME%\share\plm\plm_manager\bin\win32\PLM_Manager.exe
```

provided that both PLM_SERVER and PLM_PORT_NUMBER environment variables have been defined.

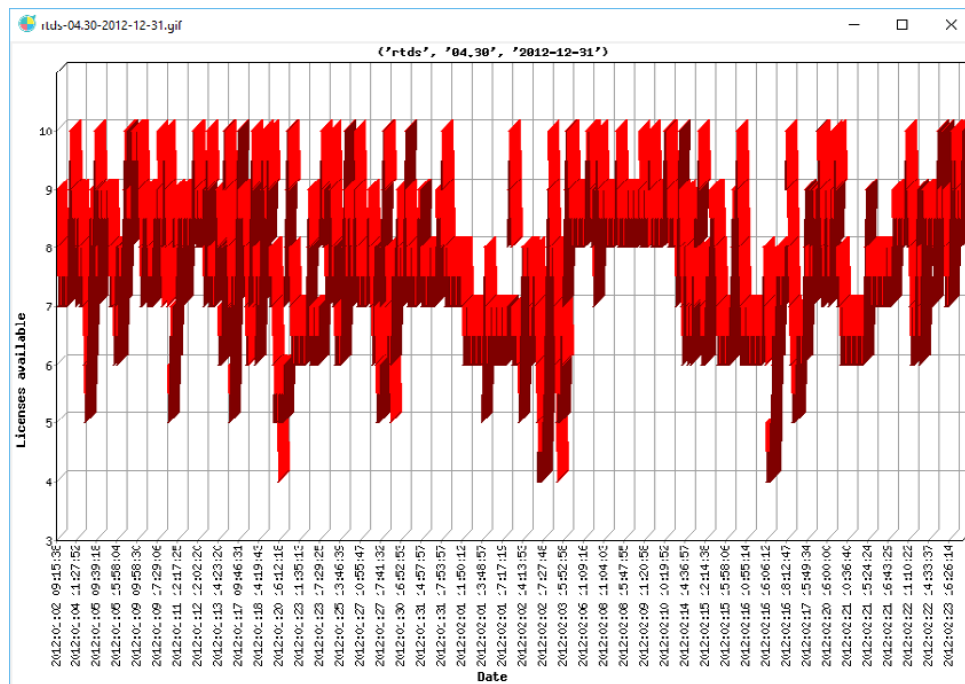
The following window will open and connect to the license server:



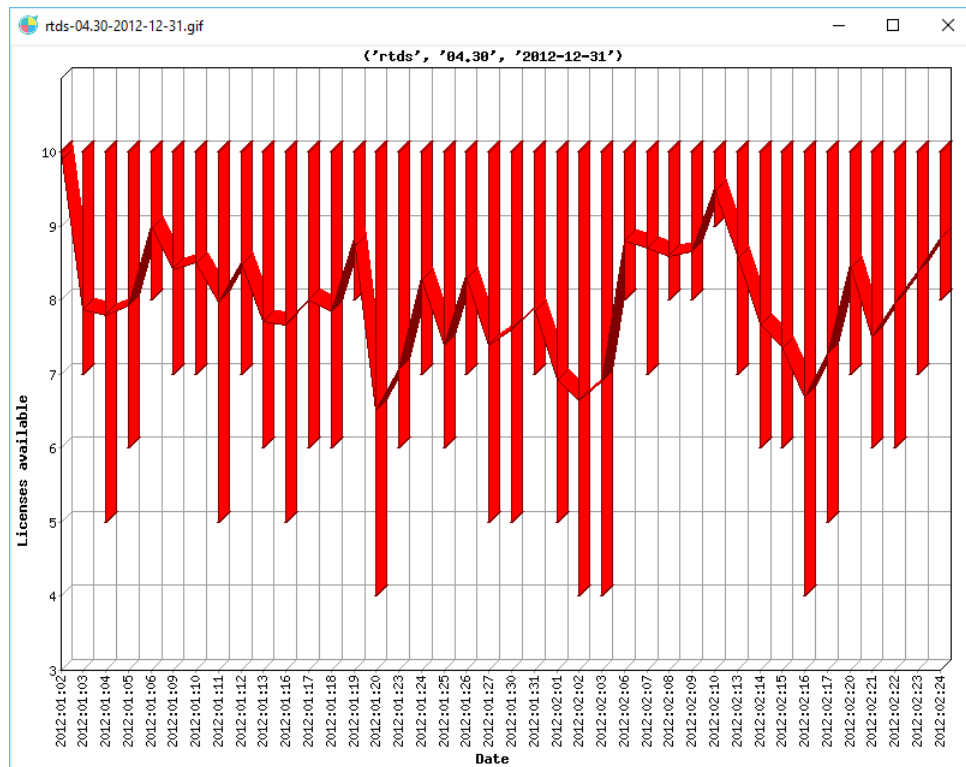
The following features are available:

- Refresh
This will ask the license server some updated information. This is usually not needed since the PLM Manager is refreshed automatically each time the a license is taken or given back.
- Reread
When updating the license file on the server, Reread will read again the license file. When reading a new license file, licenses are not lost if available in the new license file.

- Log
Retrieves the whole log file from the server and displays it on the top of the window.
- Rejected license requests
Retrieves the whole log file - so it might take some time- and displays all license requests that I have rejected.
- Generates license usage charts
Retrieves the whole log file - so it might take some time- and generates a basic license usage chart for each feature based on the log file such as the following:



- Generate license usage high low average graph
Retrieves the whole log file - so it might take some time- and generates a license usage chart for each feature based on the log file with the highs and lows for each day such as the following:



- Force release of selected license

As PLM does not implement any heartbeat mechanism to test the connection to each client, it might happen a license stays locked because the client did not release it. For that matter it is possible to force the release of a license in the license manager interface. Select a license to release and click on the “Force release of selected license” button.

3 Unix installation

3.1 PragmaDev Studio

The installation is made by running the shell script `install.sh` located in the top directory. Once the questions asked by the script are answered, the installation will just copy the required files at the specified location. Make sure you have the proper permissions to write to the installation directory.

The installation script installs PragmaDev Studio for the current platform. If you need to install for another platform (e.g., shared installation on a Unix server for Windows clients), you can give the target platform name as a parameter to the script. The possible platform names are `linux64`, `windows` and `macosx64`.

Then, as indicated by `install.sh`, each PragmaDev Studio client account should then be configured by "sourcing" the configuration script in their shell startup script. For sh-compatible shells, this is done by including the line:

```
. <installation_dir>/pragmastudio-config.sh
```

in your `.profile`; if you use a csh-compatible script, this is done by including the line:

```
source <installation_dir>/pragmastudio-config.csh
```

in your `.cshrc`.

3.2 PragmaDev Studio fonts

This part of the installation is optional but recommended to ensure a WYSIWYG behavior of PragmaDev Studio when printing and exporting diagrams to images. To do so, PragmaDev Studio should preferably use the same font on the display and when printing and exporting.

PragmaDev Studio will try to install its fonts itself in the local fonts directory (`~/fonts`). You may have to quit the application and run it again for the fonts to be seen the first time you run it. If it still does not work, you can run the following command to add the correct font directory to the font search path:

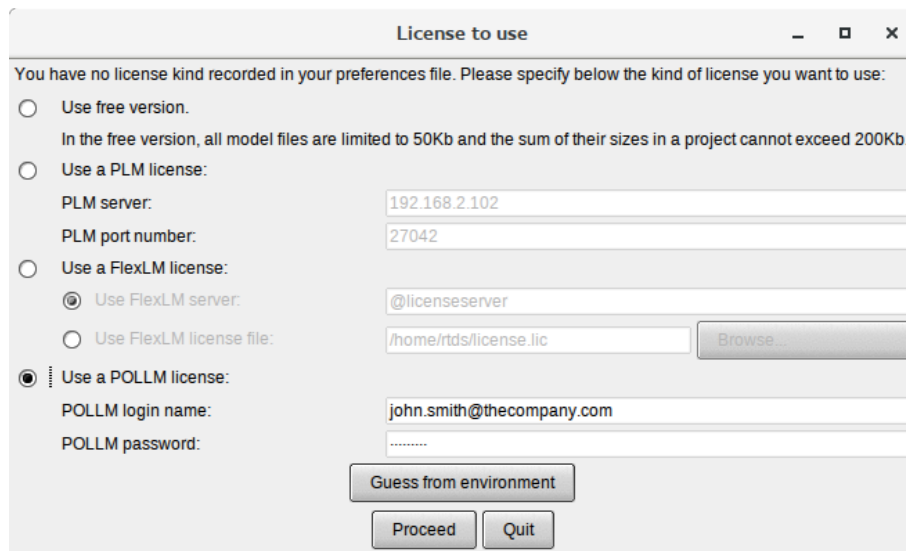
```
xset +fp $RTDS_HOME/share/print/fonts
```

This command must be run after running the application configuration script and after the X server is launched. The command is usually put in the `.xsession` script (if using `xdm`) or the `.xinitrc` script (if not). This is however highly dependent on the X server and the window manager. Please refer to the platform documentation for more information.

3.3 PragmaDev On Line License Management

One of the license manager is based on an on-line license management. The license is bought on line through PragmaDev web site and when the tool is launched the license is checked out on line. This very flexible licensing allows to use the license anywhere on any computer.

On the client side, when PragmaDev Studio is launched, a pop-up window will ask for the type of license to use:



The "License to use" dialog box prompts the user to select a license type. It includes options for "Use free version", "Use a PLM license", "Use a FlexLM license", and "Use a POLLM license". The "Use a POLLM license" option is selected. Fields for "POLLM login name" and "POLLM password" are provided, along with a "Guess from environment" button. "Proceed" and "Quit" buttons are at the bottom.

License to use

You have no license kind recorded in your preferences file. Please specify below the kind of license you want to use:

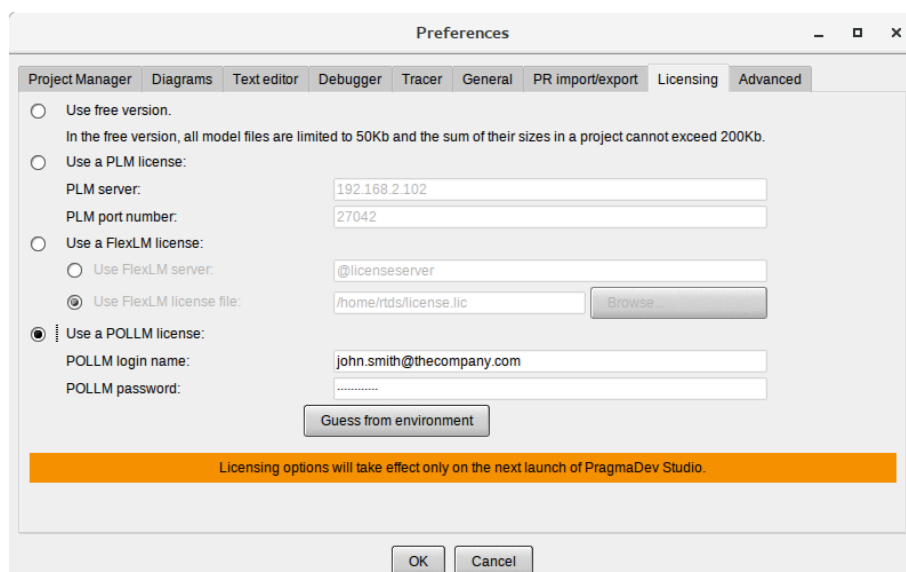
- ☐ Use free version.
In the free version, all model files are limited to 50Kb and the sum of their sizes in a project cannot exceed 200Kb.
- ☐ Use a PLM license:
PLM server: 192.168.2.102
PLM port number: 27042
- ☐ Use a FlexLM license:
 - ☒ Use FlexLM server: @licenseserver
 - ☐ Use FlexLM license file: /home/rtds/license.lic Browse...
- ☒ Use a POLLM license:
POLLM login name: john.smith@thecompany.com
POLLM password:

Guess from environment

Proceed Quit

Use the login and password used in the members area of PragmaDev web site and that's it.

This can be changed later via the menu "Studio / Preferences..." in the tab "Licensing":



The "Preferences" dialog box, "Licensing" tab, shows the same license options as the "License to use" dialog. The "Use a POLLM license" option is selected. A yellow banner at the bottom states: "Licensing options will take effect only on the next launch of PragmaDev Studio." "OK" and "Cancel" buttons are at the bottom.

Preferences

Project Manager | Diagrams | Text editor | Debugger | Tracer | General | PR import/export | **Licensing** | Advanced

- ☐ Use free version.
In the free version, all model files are limited to 50Kb and the sum of their sizes in a project cannot exceed 200Kb.
- ☐ Use a PLM license:
PLM server: 192.168.2.102
PLM port number: 27042
- ☐ Use a FlexLM license:
 - ☐ Use FlexLM server: @licenseserver
 - ☒ Use FlexLM license file: /home/rtds/license.lic Browse...
- ☒ Use a POLLM license:
POLLM login name: john.smith@thecompany.com
POLLM password:

Guess from environment

Licensing options will take effect only on the next launch of PragmaDev Studio.

OK Cancel

3.4 FLEXlm

3.4.1 FLEXlm server

A proper FLEXlm installation requires the license server to be started automatically at power up. root privileges are required for such an installation. Still the FLEXlm license server can be started without root privilege as explained in paragraph "Manual launch" on this page.

3.4.1.1 Production install

The FLEXlm tools such as lmgrd, lmtools, pragmad, lmutil are located in the \$RTDS_HOME/share/flexlm/bin/linux directory. The way to start the license server at power up is beyond the scope of this manual, however a template of a service script file automatically starting or stopping the lmgrd daemon on server boot / shutdown is provided in the sub-directory corresponding to the machine type of \$RTDS_HOME/share/flexlm/bin/linux. The name of the service script file is flexlmd.

To define the service, just edit the file to uncomment and modify the first lines defining the script variables. Then install the script wherever the service scripts are located on the machine.

3.4.1.2 Manual launch

The license server can be started manually with the following command in \$RTDS_HOME/share/flexlm/bin/linux directory:

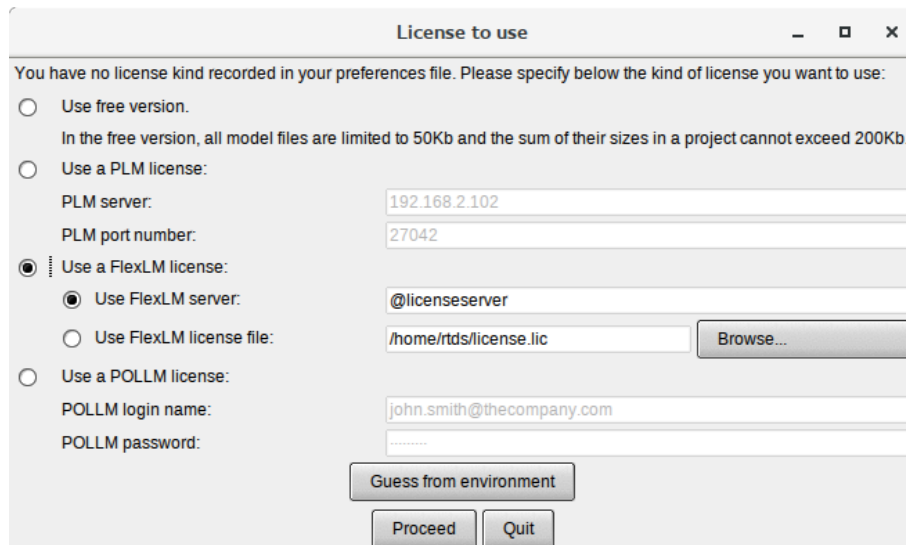
```
> lmgrd -c licensefile
```

where licensefile is the file received by email.

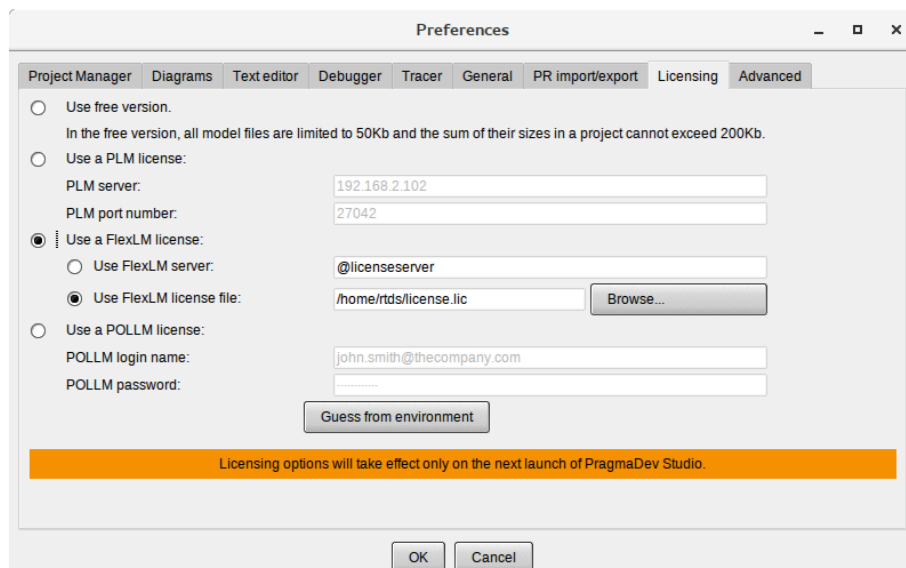
3.4.2 FLEXlm client

The FLEXlm client is embedded in PragmaDev Studio application, so it is started when the application is launched.

The FLEXlm client can be configured the first time PragmaDev Studio is started:



This can be changed later via the menu “Studio / Preferences...” in the tab “Licensing”:



3.5 PLM

3.5.1 PLM server

All the necessary files are located in `$RTDS_HOME/share/plm/plm_server/bin/<platform>` directory.

The `PLM_PORT_NUMBER` environment variable should be defined as a system variable so that it is always defined. Its value should be set to a valid socket port number on the computer. We recommend a default value of 27042.

The license file you will receive from PragmaDev must be put in the directory where all the files are and named `plm.lic`. The PLM server requires a `/tmp` folder to exist.

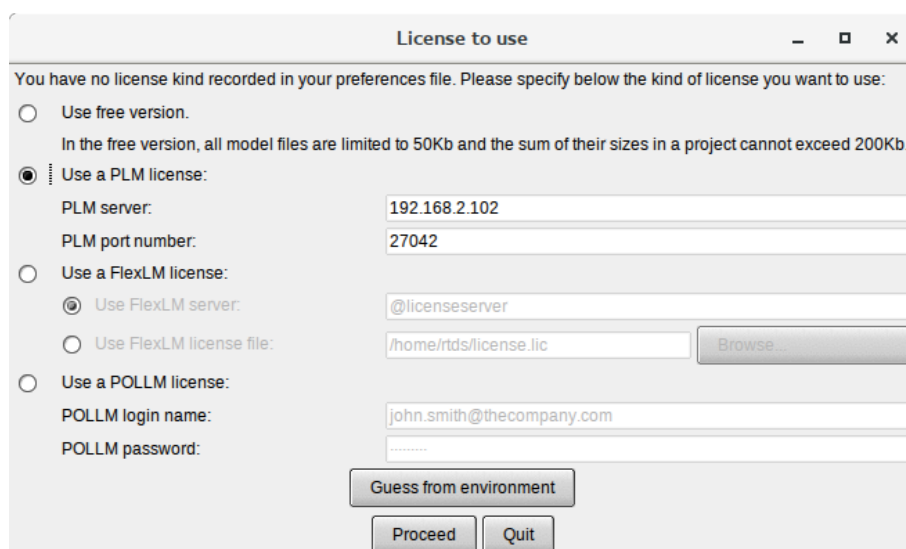
Once you have received the license file, PLM server should be installed as a Unix daemon to be started automatically when the computer boots. A sample script called `plmd` is provided to be put in `/etc/init.d`. We suggest to set up a symbolic link from `rc5.d/S09plmd` to that script so that it is started n°9 at startup level 5. In the example script, all the necessary files have been copied to:

`/opt/pragmadev/plm/bin`

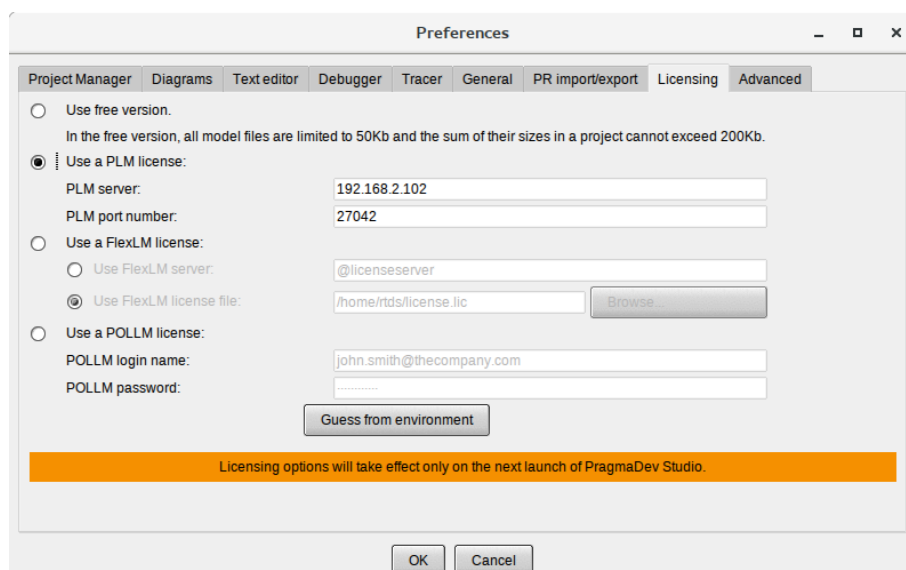
If a PLM server is started while another one is running, the new server will start and the old one will eventually die by itself.

3.5.2 PLM client

The PLM client can be configured the first time PragmaDev Studio is started:



This can be changed later via the menu “Studio / Preferences...” in the tab “Licensing”:



The “PLM server” is the server hostname or IP address and the “PLM port number” is the port number defined on the server (the PLM_PORT_NUMBER environment variable). The PLM client can be configured also by defining following environment variables:

- PLM_SERVER set to the server hostname or IP address,
- PLM_PORT_NUMBER set to the port number defined on the server.

If both environment variables are defined, their values will be picked up automatically when starting PragmaDev Studio the first time, or at any time via the “Guess from environment” button.

3.5.3 PLM management

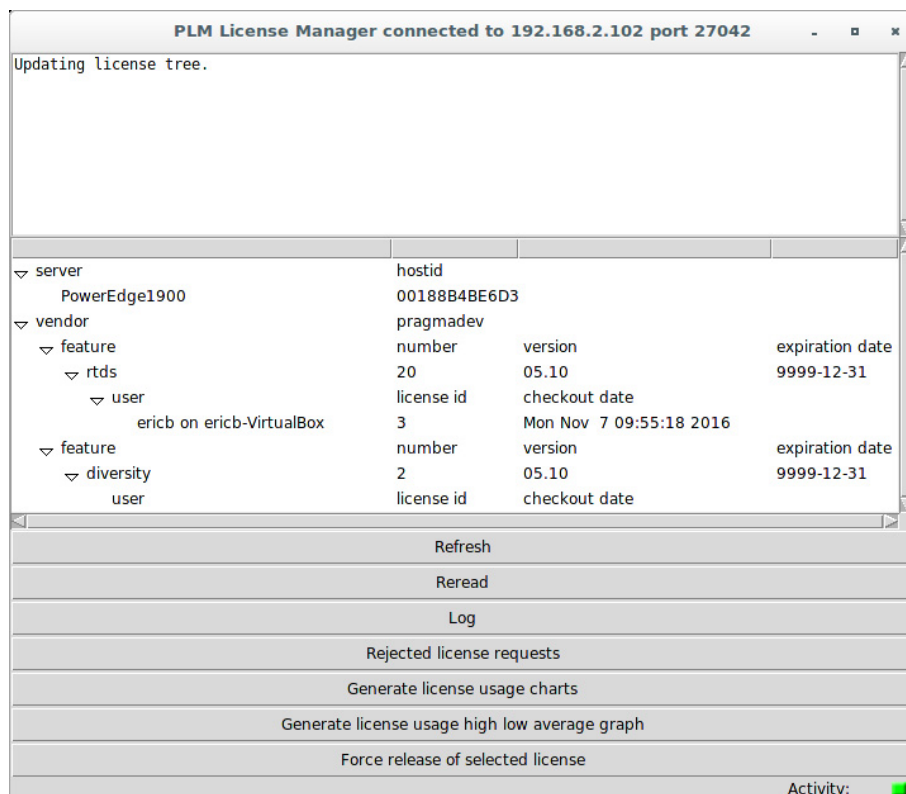
PLM includes a management tool to analyze license usage. It can be run on any computer on the network via the menu “Studio / Manage PLM licenses...” provided that a PLM license was already configured (see "PLM client" on the previous page).

Another way is to run

`$RTDS_HOME/share/plm/plm_manager/bin/linux64/PLM_Manager`

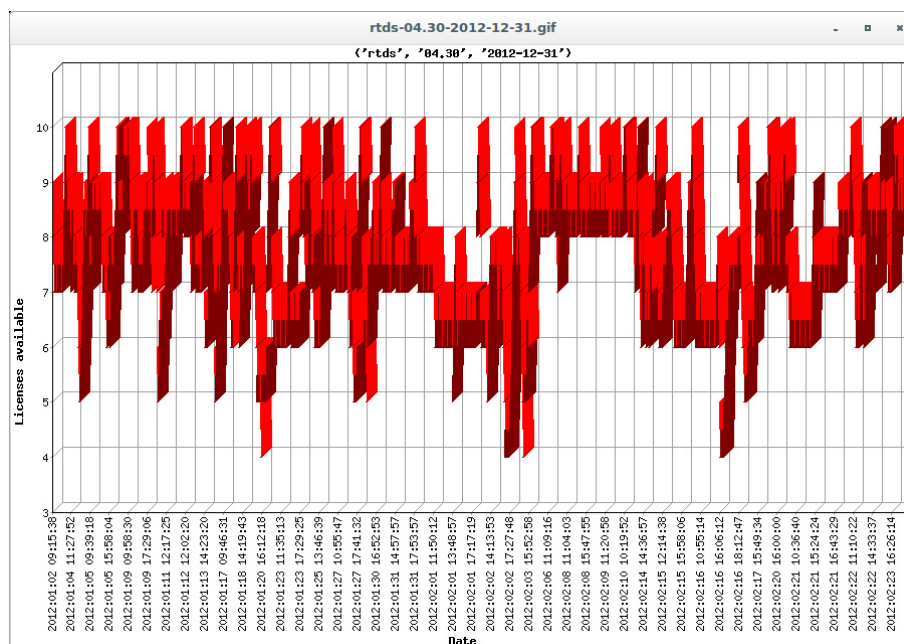
provided that both PLM_SERVER and PLM_PORT_NUMBER environment variables have been defined.

The following window will open and connect to the license server:

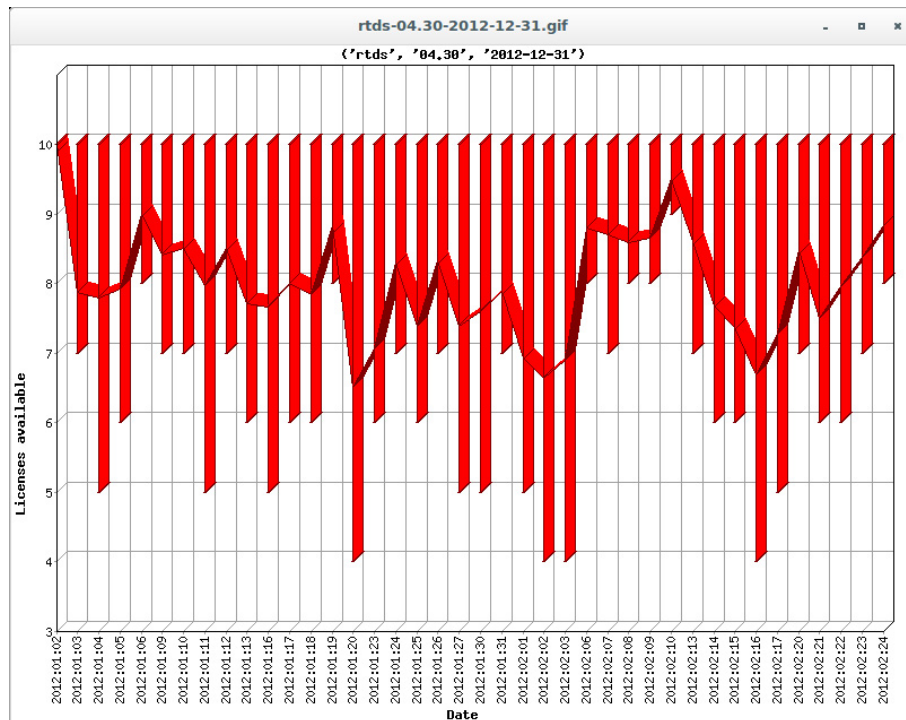


The following features are available:

- Refresh
This will ask the license server some updated information. This is usually not needed since the PLM Manager is refreshed automatically each time the a license is taken or given back.
- Reread
When updating the license file on the server, Reread will read again the license file. When reading a new license file, licenses are not lost if available in the new license file.
- Log
Retrieves the whole log file from the server and displays it on the top of the window.
- Rejected license requests
Retrieves the whole log file - so it might take some time - and displays all license requests that I have rejected.
- Generates license usage charts
Retrieves the whole log file - so it might take some time - and generates a basic license usage chart for each feature based on the log file such as the following:



- Generate license usage high low average graph
Retrieves the whole log file - so it might take some time- and generates a license usage chart for each feature based on the log file with the highs and lows for each day such as the following:



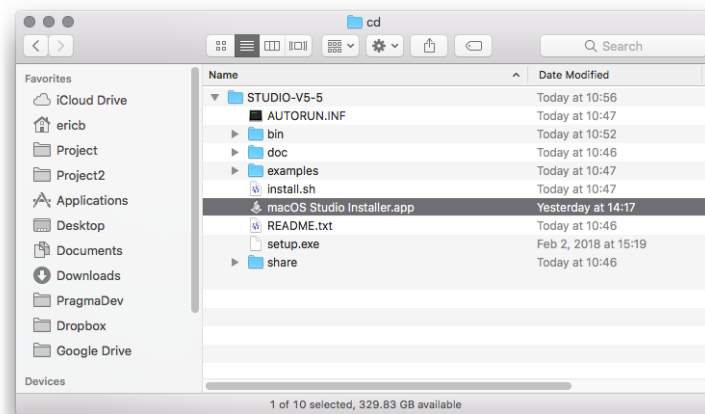
- Force release of selected license

As PLM does not implement any heartbeat mechanism to test the connection to each client, it might happen a license stays locked because the client did not release it. For that matter it is possible to force the release of a license in the license manager interface. Select a license to release and click on the “Force release of selected license” button.

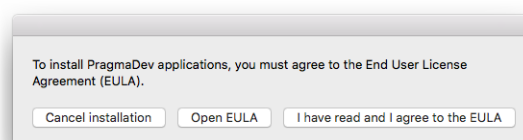
4 Mac installation

4.1 PragmaDev Studio

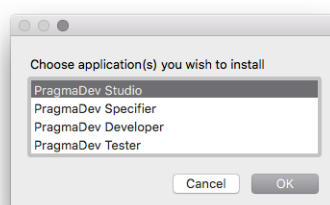
Download PragmaDev Studio and unzip it:



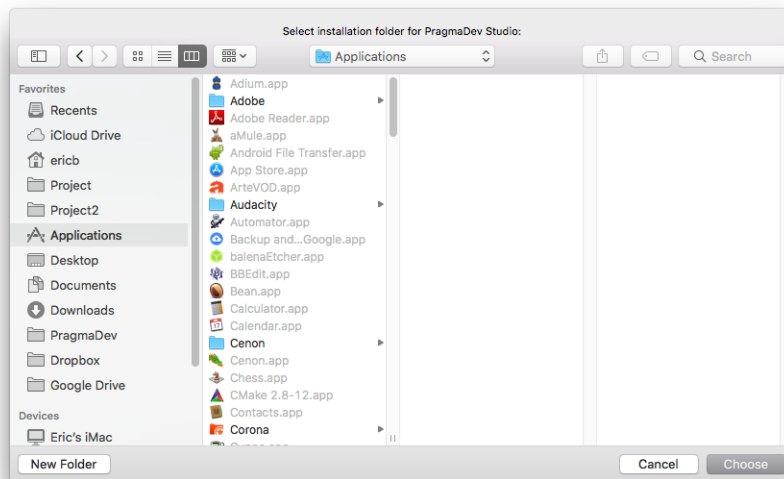
Launch the macOS Studio Installer application. You might get a warning that the installer is an application downloaded from the internet and that it wants to control the Finder. Acknowledge both to make sure the installer runs correctly. The End User License Agreement window will then pop up.



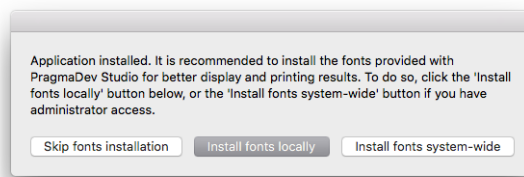
Select the application(s) you wish to install:



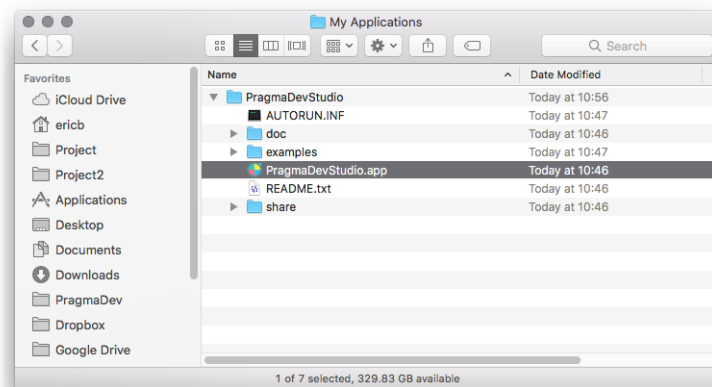
Select a destination folder. The default is to install in /Applications, but you can choose whatever installation folder you wish:



The diagrams in PragmaDev Studio are displayed better with the fonts provided with the application, so we advise you to install these fonts. They can be installed only for your user or system-wide, if you have the permissions:



If you have a license server running, you can now start PragmaDev Studio.

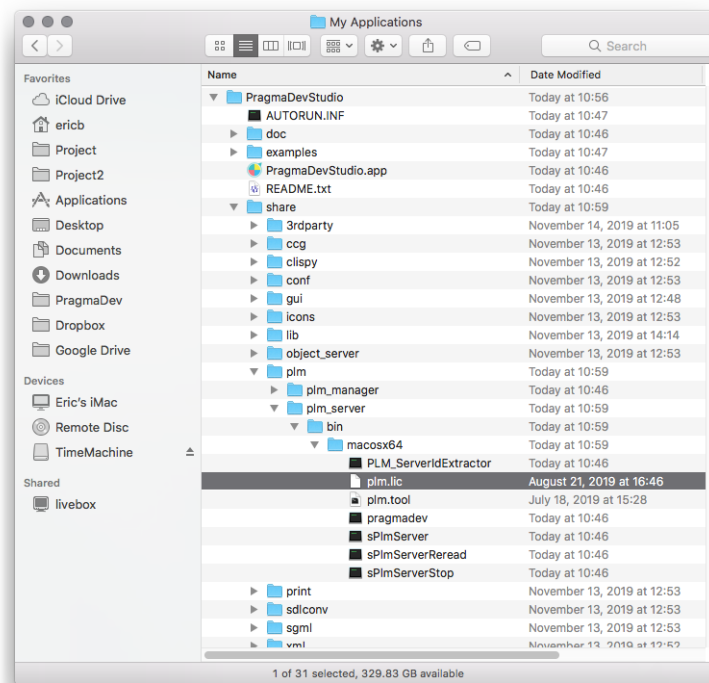


4.2 PLM

4.2.1 PLM Server

4.2.1.1 Manual startup

What follows describes how to start the PLM server manually. The license file must be named `plm.lic` and must be saved in the PLM directory (`<installation folder>/share/plm/plm_server/bin/macosx64/`).



Open a bash shell and type the following commands:

```
cd <installation folder>/share/plm_server/bin/macosx
export PLM_SERVER=127.0.0.1
export PLM_PORT_NUMBER=27042
./sPlmServer
```

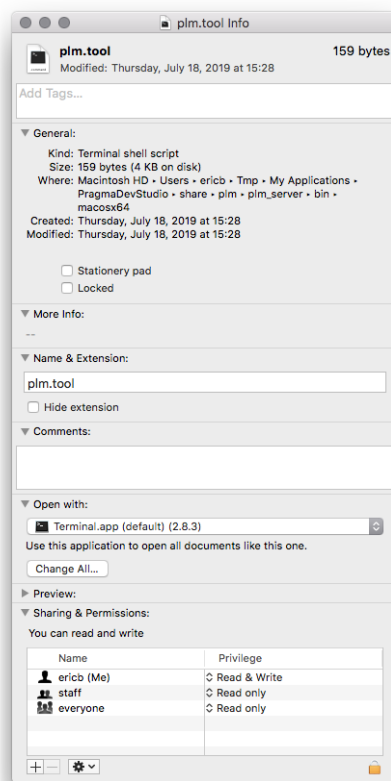
```

macosx64 — sPlmServer — 120x54
imac-wifi:~ ericb$ cd /Applications/PragmaDevStudio/share/plm/plm_server/bin/macosx64
imac-wifi:macosx64 ericb$ export PLM_SERVER=127.0.0.1
imac-wifi:macosx64 ericb$ export PLM_PORT_NUMBER=27042
imac-wifi:macosx64 ericb$ ./sPlmServer
2019:11:29 11:03:39 Action:Info PragmaDev License Server V1.3 starting...
2019:11:29 11:03:39 Action:Info License file successfully loaded
2019:11:29 11:03:39 Action:Info License file successfully parsed
2019:11:29 11:03:39 Action:Info Hostname is : imac-wifi.home
2019:11:29 11:03:39 Action:Info PLM on imac-wifi.home: hostid of the computer can be: 685B35C61859
2019:11:29 11:03:39 Action:Info PLM on imac-wifi.home: hostid of the computer can be: 8418D1EC2741
2019:11:29 11:03:39 Action:Info PLM on imac-wifi.home: hostid of the computer can be: 0618D1EC2741
2019:11:29 11:03:39 Action:Info PLM on imac-wifi.home: hostid of the computer can be: 3EE45928B50F
2019:11:29 11:03:39 Action:Info PLM on imac-wifi.home: hostid of the computer can be: 320010C9E000
2019:11:29 11:03:39 Action:Info PLM on imac-wifi.home: hostid of the computer can be: 320010C9E001
2019:11:29 11:03:39 Action:Info PLM on imac-wifi.home: hostid of the computer can be: 320010C9E000
2019:11:29 11:03:39 Action:Info PLM on imac-wifi.home: hostid in the license file is: 685B35C61859
2019:11:29 11:03:39 Action:Info PLM on imac-wifi.home: hostid in the license file is: 685B35C61859
2019:11:29 11:03:39 Action:Info PLM on imac-wifi.home: hostid in the license file is: 685B35C61859
2019:11:29 11:03:39 Action:Info PLM on imac-wifi.home: hostid in the license file is: 685B35C61859
2019:11:29 11:03:39 Action:Info PLM on imac-wifi.home: hostid in the license file is: 685B35C61859
2019:11:29 11:03:39 Action:Info PLM on imac-wifi.home: hostid in the license file is: 685B35C61859
2019:11:29 11:03:39 Action:Info PLM on imac-wifi.home: hostid in the license file is: 685B35C61859
2019:11:29 11:03:39 Action:Info PLM on imac-wifi.home: hostid recognized
2019:11:29 11:03:39 Action:Info Starting daemon: pramadev
2019:11:29 11:03:39 Action:Verification Feature:studio Version:05.50 Number:1 Expires:2019-12-31 Status:Checked
2019:11:29 11:03:39 Action:Info Socket shutdown status: -1.

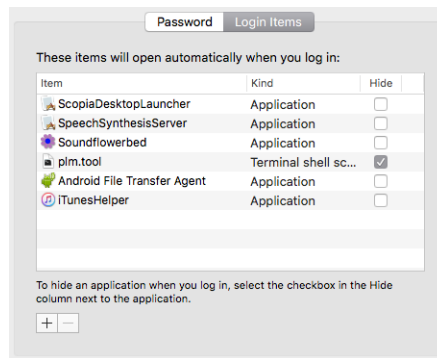
```

4.2.1.2 Automatic startup

Make sure the utility `plm.tool` (in `<installation folder>/share/plm/ plm_server/bin/macosx64`) will be executed with the terminal application:

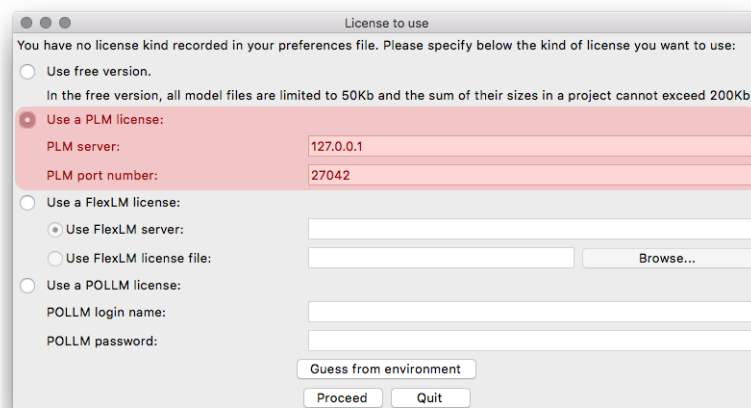


Open the System Preferences application, then go to Users & Groups and select the Login Items tab. There, add `plm.tool` to make sure it starts when logging in:



4.2.2 PLM Client

The PLM client can be configured the first time PragmaDev Studio is started:



This can be changed later via the menu “Studio / Preferences...” in the “Licensing” tab:

