

INSTALLATION MANUAL







Contents

1	Intr	oduction	3
	1.1	Description	3
	1.2	PragmaDev On Line License Management	4
	1.3	PragmaDev License Manager	5
	1.4	PLM file	7
	1.5	Model checker	3
	1.6	Fonts	3
	1.7	Error reporting	9
	1.8	Initial text size issue	9
	1.9	Tutorial)
2	Win	dows installation 11	1
	2.1	PragmaDev Studio	1
	2.2	PragmaDev On Line License Management	1
	2.3	PLM	2
		2.3.1 PLM server	2
		2.3.2 PLM client	3
		2.3.3 PLM management	4
3	Uni	x installation 18	3
	3.1	PragmaDev Studio	3
	3.2	PragmaDev Studio fonts	3
	3.3	PragmaDev On Line License Management	9
	3.4	PLM	C
		3.4.1 PLM server)
		3.4.2 PLM client	C
		3.4.3 PLM management	1
4	Mad	installation 25	5
	4.1	PragmaDev Studio	5
	4.2	PLM	7
	•	4.2.1 PLM Server	7
		4.2.1.1 Manual startup	7
		4.2.1.2 Automatic startup	3
		4.2.2 PLM Client	9



1 Introduction

1.1 Description

PragmaDev Studio comes with a free mode and 2 different license managers: PragmaDev License Manager (PLM), and PragmaDev On Line License Manager (POLLM). PLM can handle floating license from a license server or node locked licenses from a file.

The type of license can be selected the first time you start PragmaDev Studio:

•	License to use		×						
You	You have no license kind recorded in your preferences file. Please specify below the kind of license you want to use:								
\odot	Use free version.								
	In the free version, al	I model files are limited to 50Kb and the sum of their sizes in a project cannot exceed 2008	(Ь.						
0	Use a PLM license fro	om a server:							
	PLM server:	127.0.0.1							
	PLM port number:	27042							
0	Use a nodelocked PL	M license:							
	PLM license file:	C:\PragmaDev\License\pIm.lic Browse							
0	Use a POLLM license								
	POLLM login name:	john.smith@company.com							
	POLLM password:								
		Guess from environment							
		Proceed Quit							

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



rojec	t Manager	Diagrams	Text editor	Debugger	Tracer	General	PR import/export	Licensing	Advanced	
	Use free ver	sion.								
- , 	n the free v	ersion, all i	model files a	re limited to	50Kb a	nd the su	um of their sizes in	a project ca	nnot exceed 200Kb	
0	Use a PLM I	license fron	n a server:							
1	PLM server:	1	92.168.2.102							
	PLM port n	umber: 2	27042							
0	Use a nodel	ocked PLN	l license:							
	PLM license	e file:	D:\PragmaDe	v\License\	olm.lic					Browse.
0	Use a POLL	M license:								
1	POLLM logi	in name: j	ohn.smith@	company.c	om					
	POLLM pas	sword:								
					Gue	ss from e	nvironment			
			Licensing op	tions will t	ake effe	ct only or	n the next launch o	of PragmaDe	ev Studio.	

The following paragraphs describe 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:



Pr	oducts	Арр	lications	Technology	S	upport		Co	mpany		News
	Home	> Members >	View								Lo
IEMBER	PROFILE				PURCI	HASES	1				
Company:	My July 26 C	ompany			Invoice	Tool	Amount	Licenses	Purchase date	Starts	Expires
Address:	26 July Street				258	Studio	348	1	2019-07-26	2019-07-26	2019-08-25
Zip:	26026				259	Studio	348	1	2019-08-25	2019-08-26	2019-09-25
Dity:	Paris										
Country:	France				Activit	y logs					
VAT:					Force	releas	se				
First name:	John				Purch	ase or	n line				
ast 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								

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

PRAGM	ADEV esting tools								
Products	Applications	Technology	Su	pport		Com	pany	Net	ws
Home > N	1embers > Purchase								Logou
ONE TIME PURCHASE			HISTOP	RY					
Tool: Number of licenses:	Studio 👻		Invoice	Tool	Amount	Licenses	Purchase date	Starts	Expires
Starting date:	03/09/2019 🕲		258	Studio	348	1	2019-07-26	2019-07-26	2019-08-25
Number of months:	3		259	Studio	348	1	2019-08-25	2019-08-26	2019-09-25
Price per months: Total excl. of VAT: Apply VAT (*): (*): VAT is due by all individu French corporations, but it is n	290 870	live in, it is also due by ons.							
SUBSCRIBE									
Subscription can be stopped a	ny time. Please note any s	started period is fully due.							
Tool: Number of licenses: Starting date: Price per license: Total per month excl. of VAT: Apply VAT (*): (*): VAT is due by all individu	Studio 1 Today 290 © Yes © N Subscribe Ials whatever country you to due by foreign corporation	live in, it is also due by ons.							

And pay on line with your credit card:





nnuler et retourner à la boutique				Sélectio	nnez votre la	angue : Fi
ANN U E						
PRAGN	ADEV sesting tools	Choisis	sez votre mo	oven de p	aieme	ent :
http://www.pragm Numéro de transaction : Identifiant du marchand :	adev.com/ 084823 36888663	СВ	Mastercard	Maestro	Visa Ele	ectron
Montant :	1 044,00 EUR		e-Carte Bleue	VISA Visa		
PCI					Systempay	Mentions légr

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 PragmaDev License Manager

PragmaDev License Manager (PLM) is based on a client-server architecture. The client is embedded in PragmaDev Process while the server must be started separately before the client. The license server 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 Process 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.

1.4 PLM file

PragmaDev License Manager can also be used node locked. That means the license file is dedicated to a single computer. In that case there is no server to start. Just point to the PLM license file in the preferences and that's it.



	eferences									×
Proje	ect Manager	Diagrams	Text editor	Debugger	Tracer	General	PR import/export	Licensing	Advanced	
0	Use free ver	sion.								
	In the free v	ersion, all	model files a	re limited to	50Kb a	and the s	um of their sizes in a	a project ca	nnot exceed 200Kb	o.
0	Use a PLM I	icense fror	n a server:							
	PLM server:		192.168.2.102							
	PLM port n	umber:	27042							
۲	Use a nodel	ocked PLN	1 license:							
	PLM license	file:	C:\PragmaDe	v\License\	plm.lic					Browse
0	Use a POLL	M license:								
	POLLM logi	in name: j	ohn.smith@	company.c	om					
	POLLM pas	sword:								
					Gue	ess from e	environment			
			Licensing of	otions will t	ake effe	ct only o	n the next launch of	f PragmaDe	ev Studio.	
					(ОК	Cancel			

1.5 Model checker

PragmaDev Process comes with ENSTA Bretagne OBP (Observer Based Prover) checking tool to verify properties on the BPMN model. This tool does not require any license but is java based, so an up-to-date Java installation is required in order to use the property checking features.

1.6 Fonts

Once the license type has been selected, on the first launch of PragmaDev Studio, a window will pop up regarding the fonts to be used by the tool. We recommend to use the fonts coming with the installation as it guarantees a better consistency.

🍯 PragmaDev Studio	×
No font management mode was chosen for the application yet. Please choose one of the following m	odes:
Use fonts provided in installation in diagrams (recommended)	
○ Use regular system fonts in diagrams	
NB: - Using regular system fonts may cause print and/or export problems. - This setting can be changed in the "General" tab in the preferences dialog.	
ок	



1.7 Error reporting

Once the fonts are selected, a last window will ask what type of information you are willing to send to PragmaDev in case the tool encounters an exception.

Error reporting configuration	on X
Please select the amount of info	ormation that should be sent with error reports:
Full information	Actions performed during session, with associated texts, full diagram names, structure and contents.
 Anonymized information 	This allows the best level of analysis for the errors. Use only if there is no confidentiality issue at all for your
 No information 	diagrams.
	ОК

The more information we receive, the better it is. But for confidentiality reasons we understand all kind information can not be reported to us. Whatever the initial choice, it can be modified later on in the Preferences, in the General tab. Also a confirmation window will appear each time some information is about to be sent.

1.8 Initial text size issue

It happens that at the first run of PragmaDev Studio, the displayed text is very small. This happens mainly on Linux where the screen resolution is sometimes not figured out correctly, causing the application to look something like this:



To fix this issue, open the application preferences by selecting the item "Preferences..." in the "Studio" menu. In the "General" tab, there's an option called "Font DPI" which should be at the value "Default"; change it to "Forced" and enter a value in the field near it:



Project Manager	Diagrams	Text editor	Debugger	Tracer	General	PR Import/export	Licensing	Advanc	:ed	
Jser Interface										
X Use fonts pr	ovided in Instal	lation		(Nee	ds restart)	3	X Detachable	toolbars		
Language: Er	nglish	-		(Nee	ds restart)	т	ab order:		Latest last	-
Theme: de	efault	-		(Nee	ds restart)				X Allow reorderin	ng
Fonts DPI: D	efault 🔻 1	30		(Nee	ds restart)	A	uto-complete	delay:	Medium	-
Show extend	led menus by (lofault								
/ersion updates										
/ersion updates										
/ersion updates	w version avail	ability on start	υρ							
/ersion updates	w version avail	ability on start	up							
Version updates	w version avail	ability on start	ир							
Version updates	w version avail	ability on start	ир							
Version updates	w version avail	ability on start	up							
Version updates Version updates X Check for ne Error reporting Sent diagram in	w version avail	ability on start ull information	up	• •						
Version updates Check for ne Error reporting Sent diagram in	ew version avail	ability on start ull Information	up	• 😯						
Version updates Check for ne Error reporting Sent diagram in Printing	ew version avail	ability on start ull information	up	- 😯						
Version updates Image: Check for ne Error reporting Sent diagram in Printing	ew version avail formation: F	ability on start	up	• 😯						
Version updates Image: Check for ne Error reporting Sent diagram in Printing Image: Use print clear	w version avail formation: Fi	ability on start	up	• 😯						
Check for ne Cror reporting Sent diagram in Printing Use print co Use comma	w version avail formation: Fi ommand: Ip and templates:	ability on start ull Information	up 	•						
Version updates Check for ne rror reporting Sent diagram in Printing Use print co Use comma Command	ew version avail formation: Fi ommand: Ip and templates: returning list of	ability on start	up 	•						
Version updates IX Check for ne Error reporting Sent diagram in Printing Use print co Use commat Command	w version avail formation: F ommand: p and templates: returning list of	ability on start	up	•						
Version updates Version updates X Check for ne Error reporting Sent diagram in Printing Use print co Use commard Command Printing command	ew version avail formation: F ommand: p and templates: returning list of mmand templa	ability on start	ир 	•						

If you don't know which value you should use for your font resolution, the value that has been automatically figured out is in the field; the smaller the "Font DPI" is, the bigger your text will be. A usual value is 96. Validate the preferences dialog, then close PragmaDev Studio and launch it again to get the updated font size. You may have to adjust the "Font DPI" value until the text in PragmaDev Studio looks right compared to other applications.

1.9 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 studio_install.exe. 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-up window will ask for the type of license to use:

€	License to use	×							
You	have no license kind r	ecorded in your preferences file. Please specify below the kind of license you want to use:							
0	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.							
0	Use a PLM license fro	m a server:							
	PLM server:	127.0.0.1							
	PLM port number:	27042							
0	Use a nodelocked PL	M license:							
	PLM license file:	C:\PragmaDev\License\pIm.lic Browse							
۲	Use a POLLM license								
	POLLM login name:	john.smith@company.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":

Installation manual



📔 Pref	ferences									
Project	t Manager I	Diagrams	Text editor	Debugger	Tracer	General	PR import/export	Licensing	Advanced	
01	Jse free vers	ion.								
h	n the free ve	ersion, all r	model files a	re limited to	o 50Kb a	ind the su	um of their sizes in	a project ca	nnot exceed 200Kb.	
οι	Jse a PLM lie	cense fron	n a server:							
F	PLM server:	1	92.168.2.102							
F	PLM port nu	mber: 2	7042							
οι	Jse a nodelo	cked PLM	l license:							
F	PLM license	file:	C:\PragmaDe	ev\License\	plm.lic					Browse
ο ι	Jse a POLLN	license:								
F	OLLM login	n name: j	ohn.smith@	company.c	om					
F	OLLM pass	word: ·								
					Gue	ss from e	nvironment			
			Licensing of	ptions will t	ake effe	ct only or	n the next launch o	f PragmaDe	ev Studio.	
					(ОК	Cancel			

2.3 PLM

2.3.1 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:



🔍 Services					-	. 🗆	×
File Action View	Help						
In I	🗟 🛛 📷 🕨 🔳 🕕 🕨						
Services (Local)	O Services (Local)						
	PImService	Name	Description	Status	Startup Type	Log On As	^
		🍓 Offline Files	The Offline		Disabled	Local System	
	Start the service	🍓 Optimize drives	Helps the c		Manual	Local System	
		🍓 Peer Name Resolution Prot	Enables serv		Manual	Local Service	
		🍓 Peer Networking Grouping	Enables mul		Manual	Local Service	
		🍓 Peer Networking Identity M	Provides ide		Manual	Local Service	
		🍓 Performance Counter DLL	Enables rem		Manual	Local Service	
		🍓 Performance Logs & Alerts	Performanc		Manual	Local Service	
		🍓 Phone Service	Manages th		Manual (Trig	Local Service	
		Revice PlmService			Automatic	Local System	
		🍓 Plug and Play	Enables a c	Running	Manual	Local System	
		Pml Driver HPZ12			Automatic	Local Service	
		🍓 PNRP Machine Name Publi	This service		Manual	Local Service	
		Rortable Device Enumerator	Enforces gr		Manual (Trig	Local System	
		i Power	Manages p	Running	Automatic	Local System	~
	Extended Standard						
	Extended Standard						

The service should be set to start automatically. As installing the service does not actually starts 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.

2.3.2 PLM client

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

•	License to use	×
You	have no license kind r	ecorded in your preferences file. Please specify below the kind of license you want to use:
0	Use free version.	
	In the free version, al	I model files are limited to 50Kb and the sum of their sizes in a project cannot exceed 200Kb.
۲	Use a PLM license fro	om a server:
	PLM server:	192.168.1.1
	PLM port number:	27042
0	Use a nodelocked PL	M license:
	PLM license file:	C:\PragmaDev\License\pIm.lic Browse
0	Use a POLLM license	:
	POLLM login name:	john.smith@company.com
	POLLM password:	
		Guess from environment
		Proceed Quit

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



P	ererences		
Proje	ect Manager Diag	rams Text editor Debugger Tracer General PR import/export Licensing Advanced	
0	Use free version.		
	In the free version	n, all model files are limited to 50Kb and the sum of their sizes in a project cannot exceed 200Kb.	
\odot	Use a PLM licens	e from a server:	
	PLM server:	192.168.2.102	
	PLM port numbe	r: 27042	
0	Use a nodelocke	I PLM license:	
	PLM license file:	C:\PragmaDev\License\pIm.lic	Browse
0	Use a POLLM lice	nse:	
	POLLM login nar	ne: john.smith@company.com	
	POLLM password		
		Guess from environment	
		Licensing options will take effect only on the next launch of PragmaDev Studio.	
		OK Canad	

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.

2.3.3 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:



PLM License Manager connected to 192.168.2	2.102 port 27042		-		K
Updating license tree.					<u> </u>
 server PowerEdge1900 vendor feature 	hostid 00188B4BE6D3 pragmadev number 20	version	expirati	on date	× 4
user	20 license id	checkout date	9999-12	-31	
ericb on ericb-VirtualBox	3	Mon Nov 7 09:55:18 2016			
⊟ feature	number	version	expirati	on date	
diversity	2	05.10	9999-12	-31	
user	license id	checkout date			-
					
	Refresh				
	Reread				
	Log				
	Rejected license re	quests			
	Generate license usa	ge charts			
Gener	ate license usage high l	ow average graph			
	Force release of select	ed license			
			Act	ivity:	

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:

\bigcap		License to use	- • ×
You	have no license kind	recorded in your preferences file. Please specify below the kind of license you w	vant to use:
\diamond	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.
\diamond	Use a PLM license fr	om a server:	
	PLM server:	192.168.2.102	
	PLM port number:	27042	
Ŷ	Use a nodelocked P	LM license:	
	PLM license file:		Browse
٠	Use a POLLM license	2:	
	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":

					Pi	referenc	es			-		×
Pro	ject Manager	Diagrams	Text editor	Debugger	Tracer	General	PR import/export	Licensing	Advanced			
٠	Use free vers	sion. ersion, all m	odel files are	limited to 5	0Kb and	I the sum	of their sizes in a	project canr	not exceed 20	00Kb.		
\diamond	Use a PLM lic	ense from	a server:									
	PLM server:	192	.168.2.102									
	PLM port nur	mber: 270)42									
\diamond	Use a nodelo	cked PLM li	cense:									
	PLM license f	file:								BI	rowse	
٠	Use a POLLM	l license:										
	POLLM login	name: johr	n.smith@theo	company.co	m							
	POLLM passv	vord: ·····										
					Guess f	rom envir	onment					
		Li	censing optic	ons will take	effect o	nly on the	e next launch of Pr	agmaDev St	udio.			
					ОК		Cancel					



3.4 PLM

3.4.1 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.

3.4.2 PLM client

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

		License to use
You	have no license kind	d recorded in your preferences file. Please specify below the kind of license you want to use:
\diamond	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 200K
٠	Use a PLM license fr	rom a server:
	PLM server:	192.168.2.102
	PLM port number:	27042
\diamond	Use a nodelocked P	LM license:
	PLM license file:	Browse
\diamond	Use a POLLM license	e:
	POLLM login name:	john.smith@thecompany.com
	POLLM password:	
		Guess from environment
		Proceed Quit

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



		Preferences	- •
Proj	ject Manager	Diagrams Text editor Debugger Tracer General PR import/export Licensing Advanced	
\diamond	Use free vers	sion.	
	In the free ve	ersion, all model files are limited to 50Kb and the sum of their sizes in a project cannot exceed 20	OKb.
•	Use a PLM lic	ense from a server:	
	PLM server:	192.168.2.102	
	PLM port nur	mber: 27042	
٢	Use a nodelo	icked PLM license:	
	PLM license f	île:	Browse
>	Use a POLLM	l license:	
	POLLM login	name: john.smith@thecompany.com	
	POLLM passw	vord:	
		Guess from environment	
		Licensing options will take effect only on the next launch of PragmaDev Studio.	

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.

3.4.3 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 license was already configured (see "PLM client" on the preceding 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:



PLM License Manag	er connected t	o 192.168.2.102 port 27042	. • ×
Updating license tree.			
	hostid		
PowerEdge1900	00188B4BE6	5D3	
⇒ vendor	pragmadev		
⇒ feature	number	version	expiration date
	20	05.10	9999-12-31
	license id	checkout date	
ericb on ericb-VirtualBox	3	Mon Nov 7 09:55:18 2016	
	number	version	expiration date
	2	05.10	9999-12-31
user	license id	checkout date	
	Refresh		
	Reread		
	Log		
	Rejected license	requests	
G	ienerate license us	sage charts	
Generate	license usage high	n low average graph	
Fo	orce release of sele	cted license	
			Activity:

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.

To install PragmaDev a Agreement (EULA).	plications, you mus	st agree to the End User License
Cancel installation	Open EULA	I have read and I agree to the EULA

Select the application(s) you wish to install:

Choose application(s) yo	ou wish to install
PragmaDev Studio	
PragmaDev Specifier	
PragmaDev Developer	
PragmaDev Tester	



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/).

	My Applications	
$\langle \rangle$		Q Search
Favorites	Name ^	Date Modified
iCloud Drive	🔻 🚞 PragmaDevStudio	Today at 10:56
A ariah	AUTORUN.INF	Today at 10:47
	doc	Today at 10:46
Project	examples	Today at 10:47
Project2	😴 PragmaDevStudio.app	Today at 10:46
A Angliantiana	README.txt	Today at 10:46
Mag Applications	🔻 🛅 share	Today at 10:59
Desktop	🕨 🚞 3rdparty	November 14, 2019 at 11:05
Documents	🕨 📄 ccg	November 13, 2019 at 12:53
	clispy	November 13, 2019 at 12:52
Downloads	▶ 📄 conf	November 13, 2019 at 12:53
PragmaDev	🕨 📄 gui	November 13, 2019 at 12:48
Dropbox	icons	November 13, 2019 at 12:53
	▶ 🛄 lib	November 13, 2019 at 14:14
Google Drive	object_server	November 13, 2019 at 12:53
Devices	V plm	Today at 10:59
Eric's iMag	plm_manager	Today at 10:46
	▼ plm_server	Today at 10:59
Remote Disc	▼ bin	Today at 10:59
☐ TimeMachine ≜	Tanana macosx64	Today at 10:59
	PLM_ServerIdExtractor	Today at 10:46
Shared	plm.lic	August 21, 2019 at 16:46
💭 livebox	plm.tool	July 18, 2019 at 15:28
	pragmadev	Today at 10:46
	sPImServer	Today at 10:46
	sPimServerReread	Today at 10:46
	sPimServerStop	Today at 10:46
		November 13, 2019 at 12:53
	Salconv	November 13, 2019 at 12:53
	Sgmi	November 13, 2019 at 12:53
		BROWNING TA 2010 BT 12:52
	1 of 31 selected, 329.83 GB available	

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 — sPImServer — 120×54	
<pre>[imac-wifi:~ ericb\$ cd /Applications/PragmaDevStudio/share/plm/plm_server/bin/macosx64</pre>] 🗉
[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 succesfully 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: 685835C61859	
2019:11:29 11:03:39 Action:Info PLM on imac-wifi.home: hostid of the computer can be: B418D1EC2741	
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: 3EE4592BB50F	
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: 685835C61859	
2019:11:29 11:03:39 Action:Info PLM on imac-wifi.home: hostid in the license file is: 685835C61859	
2019:11:29 11:03:39 Action:Info PLM on imac-wifi.home: hostid in the license file is: 685835C61859	
2019:11:29 11:03:39 Action:Info PLM on imac-wifi.home: hostid in the license file is: 685835C61859	
2019:11:29 11:03:39 Action:Info PLM on imac-wifi.home: hostid in the license file is: 685835C61859	
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:Into PLM on imac-witi.home: hostid in the license file is: 685835C61859	
2019:11:29 11:03:39 Action:Info PLM on imac-wifi.home: hostid recognized	
2019:11:29 11:03:39 Action:Into Starting daemon: pragmadev	
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:Into Socket shutdown status: -1.	

4.2.1.2 Automatic startup

Make sure the utility plm.tool (in *installation folder*/share/plm/ plm_server/bin/macos: will be executed with the terminal application:

Image: Contract of the second seco	tool Info	
plm.tool Modified: Thursday, July 18,	2019 at 15:28	159 bytes
Add Tags		
General: Kind: Terminal shell script Size: 158 bytes (4 KB on disk) Whee: Wacintosh HD - Users - PragmaDevStudio - shar macosx64 Created: Thursday, July 18, 2019 Modified: Thursday, July 18, 2019 Stationery pad Iscind	ericb + Tmp + My Applica e + plm + plm_server + bir at 15:28 at 15:28	tions + +
▼ More Info:		
▼ Name & Extension:		
plm.tool		
Hide extension		
▼ Comments:		
▼ Open with:		
Terminal.app (default) (2.8.3)		0
Use this application to open all doo Change All	uments like this one.	
▶ Preview:		
Sharing & Permissions: You can read and write		
Nama	Drivilago	
ericb (Me)	C Read & Write	
n staff	C Read only	
k everyone	Read only	
+- *-		Ê



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:

ScopiaDesktopLauncher	Application	
SpeechSynthesisServer	Application	
Soundflowerbed	Application	
plm.tool	Terminal shell sc	\checkmark
💞 Android File Transfer Agen	nt Application	
ITunesHelper	Application	

4.2.2 PLM Client

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

	• •	License to use	
You	have no license kind	recorded in your preferences file. Please specify below the kind of license you want to	use:
0	Use free version.		
	In the free version, a	Il model files are limited to 50Kb and the sum of their sizes in a project cannot exceed 2	200Kb.
0	Use a PLM license fr	om a server:	
	PLM server:	127.0.0.1	
	PLM port number:	27042	
0	Use a nodelocked Pl	LM license:	
	PLM license file:	Brow	se
0	Use a POLLM license	e:	
	POLLM login name:		
	POLLM password:		
		Guess from environment	
		Proceed Quit	



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

	Preferences								
	Project Manager	Diagrams	Text editor	Debugger	Tracer	General	PR import/export	Licensing	Advanced
\bigcirc	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.								
0	Use a PLM license from a server:								
	PLM server:	127.0.0.1							
	PLM port number:	27042							
	Use a nodelocked P	LM license:							
	PLM license file:								Browse
\bigcirc	Use a POLLM licens	e:							
	POLLM login name:								
	POLLM password:								
		Licensi	ng options will	Guess fr	om enviro	nment next launch	of PragmaDev Studio	5.	
				ОК	Ca	ncel			