



## It's all about the money!

Save money by:

- Managing licenses availability
- Properly allocating licenses
- Knowing your usage

Topics

- License Management
- What's with the new Flexnet software?



1. Users can choose an appropriate license
2. Specific folks can access specific licenses
3. Ensure you have enough licenses

Must understand:

- License types and how to configure them
- License options file
- How to track usage



Creo comes in different offerings



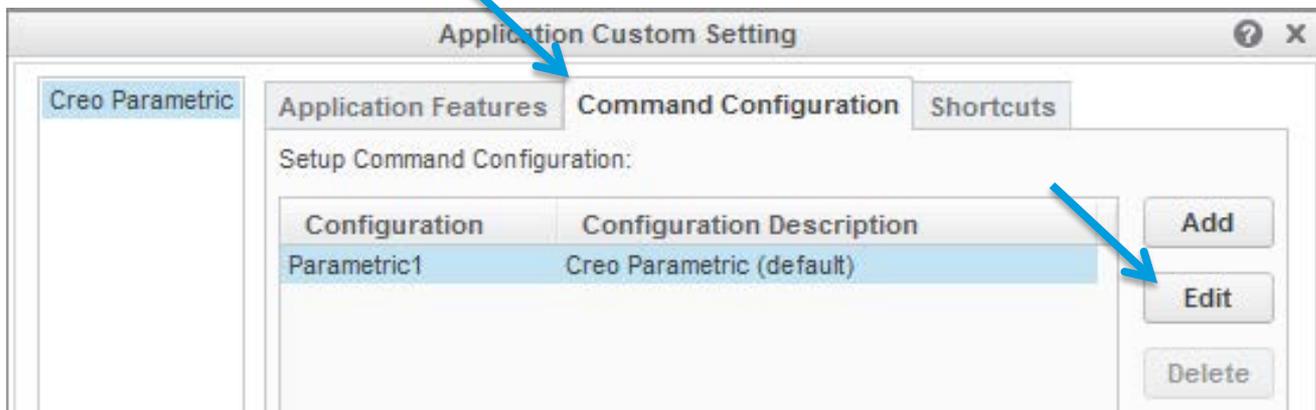
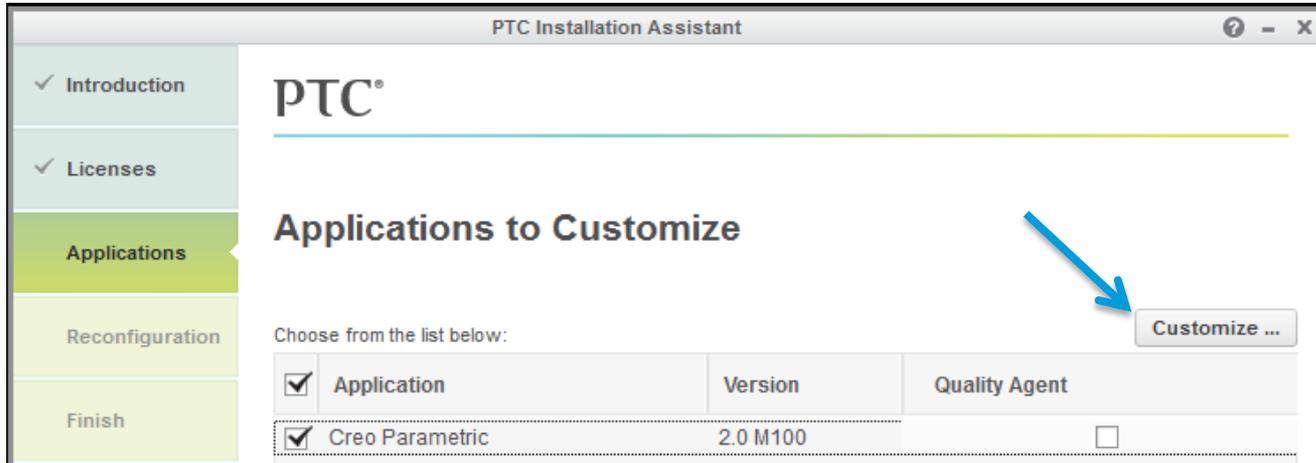
\$\$



\$\$\$\$

## Optional Components

- Floating Options - Used when you access it
- Startup Extensions - Used when you start Creo - these float also



Only active on creation

Startup menu name

License run order

If first set is used up or restricted, rolls to next set

Change the run order

These licenses are used when Creo starts up

Configuration Name: Parametric1

Configuration Description: Creo Parametric (default)

Available License(s)

- Startup Extensions
  - Reverse\_Engineering
  - Advanced\_Framework
  - INTF\_for\_CATIA\_V5
  - INTF\_for\_CATIA\_V5\_ADV
  - Manikin
  - Manikin\_Analysis
  - Legacy\_Migration
  - Flexible\_Modeling
  - VERIFY
- Floating options
  - PVANIMATION
  - MESH
  - ADVANCED\_RENDER
  - Digital\_Rights\_Mgt
  - Tolerance\_Analysis
  - ADVANCED\_RENDER\_2
  - NC\_Sheetmetal\_SET
  - Comp-Aided\_Verif\_SET
  - NC-COMPLETE\_SET
  - MATHCAD\_IMPROC
  - MATHCAD\_DATAPACK
  - MATHCAD\_SIGNAL
  - MATHCAD\_WAVELETS

Selected License(s)

License to run

- PROE\_Flex3C
- PROE\_AdvSE

Startup extensions and floating options

OK Cancel

**Add configuration**

Configuration Name:

Configuration Type:

Configuration Description:

**Available License(s)**

- ▼ Startup Extensions
  - Reverse\_Engineering
  - Advanced\_Framework
  - INTF\_for\_CATIA\_V5
  - INTF\_for\_CATIA\_V5\_ADV
  - Manikin
  - Manikin\_Analysis
  - Legacy\_Migration
  - Flexible\_Modeling
  - VERIFY
- ▼ Floating options
  - PVANIMATION
  - MESH
  - ADVANCED\_RENDER
  - Digital\_Rights\_Mgt
  - Tolerance\_Analysis
  - ADVANCED\_RENDER\_2
  - Comp-Aided\_Verif\_SET
  - MATHCAD\_IMPROC
  - MATHCAD\_DATAPACK
  - MATHCAD\_SIGNAL
  - MATHCAD\_WAVELETS

**Selected License(s)**

License to run

- PROE\_Flex3C
- PROE\_AdvSE

Startup extensions and floating options

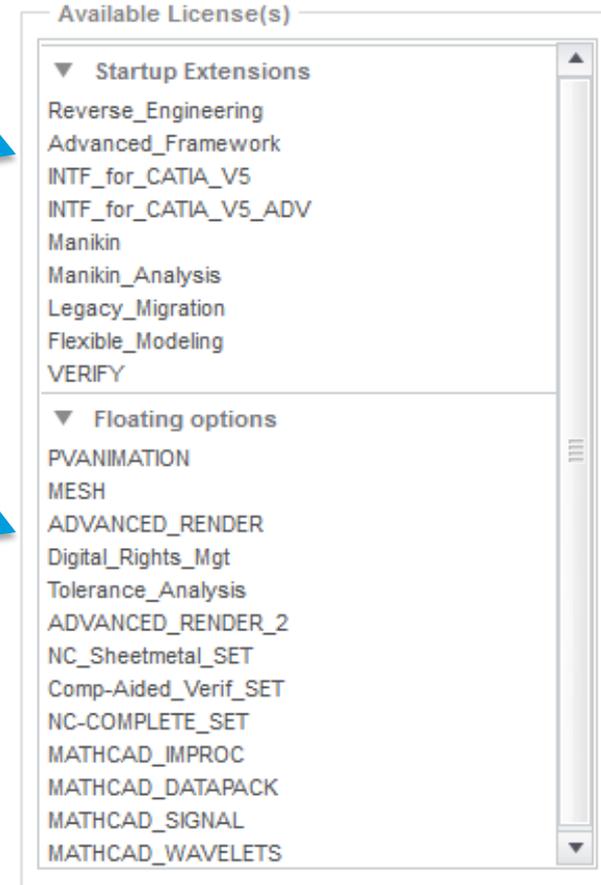
- NC-COMPLETE\_SET
- NC\_Sheetmetal\_SET

OK Cancel

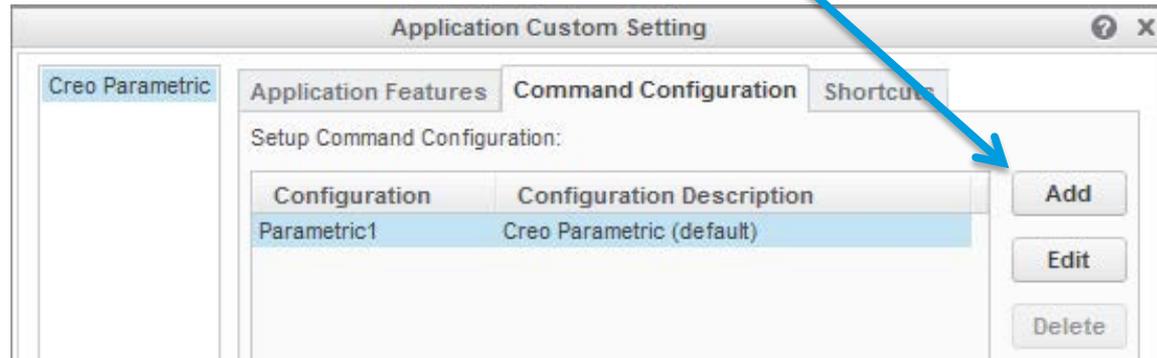
These Floating Options  
have to be configured

Startup Extensions are **unavailable** if they are not configured into a command

Floating Options are **used up** if they are configured into a command



You can add additional startup commands  
each can have their own licenses configuration

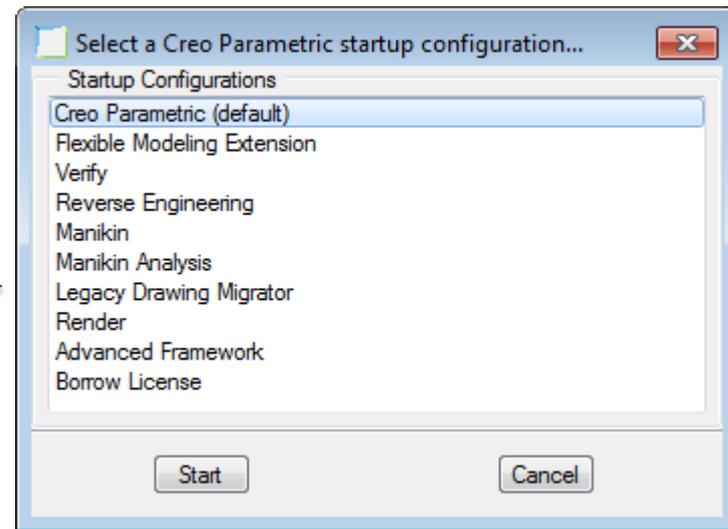
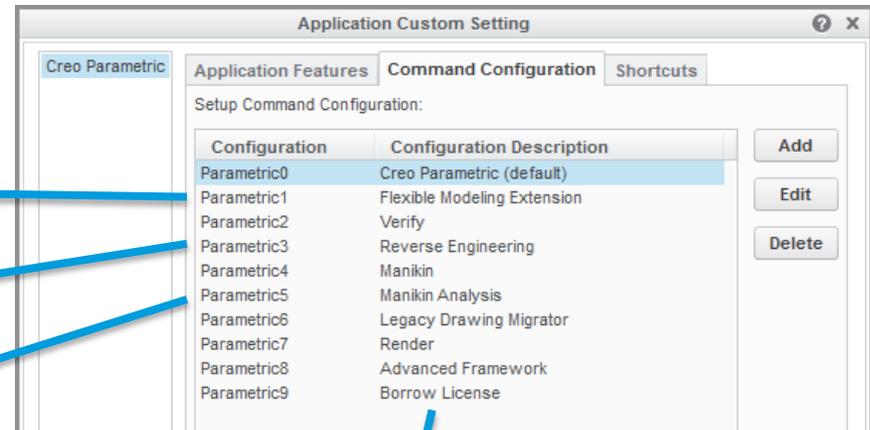
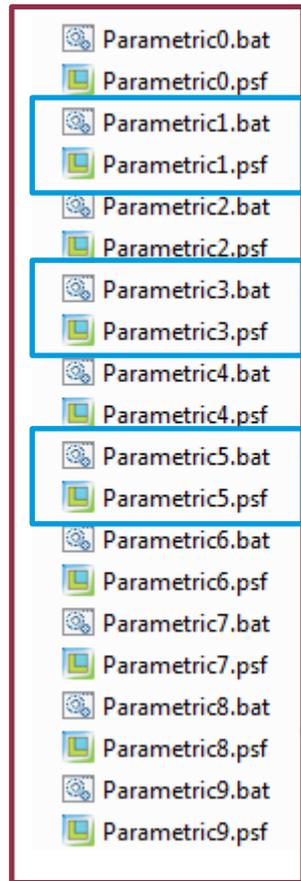


The image illustrates the process of configuring application commands. It features four main windows:

- Application Custom Setting:** This window shows a list of configurations under the 'Command Configuration' tab. The configurations are as follows:

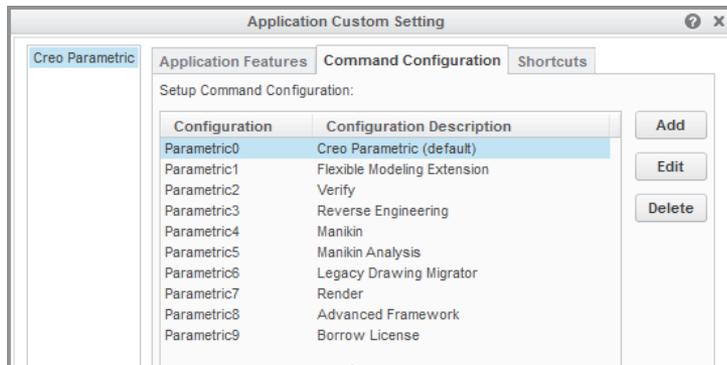
Configuration	Configuration Description
Parametric0	Creo Parametric (default)
Parametric1	Flexible Modeling Extension
Parametric2	Verify
Parametric3	Reverse Engineering
Parametric4	Manikin
Parametric5	Manikin Analysis
Parametric6	Legacy Drawing Migrator
Parametric7	Render
Parametric8	Advanced Framework
Parametric9	Borrow License
- Edit configuration (Parametric1):** Shows the configuration name 'Parametric1' and description 'Flexible Modeling Extension'. The 'License to run' section includes 'PROE\_Flex3C' and 'PROE\_AdvSE'. The 'Startup Extensions' list includes 'Reverse\_Engineering', 'Advanced\_Framework', 'INTF\_for\_CATIA\_V5', 'INTF\_for\_CATIA\_V5\_ADV', 'Manikin', 'Manikin\_Analysis', 'Legacy\_Migration', and 'VERIFY'. The 'Floating options' section is currently empty.
- Edit configuration (Parametric3):** Shows the configuration name 'Parametric3' and description 'Reverse Engineering'. The 'License to run' section includes 'PROE\_Flex3C' and 'PROE\_AdvSE'. The 'Startup Extensions' list includes 'Advanced\_Framework', 'INTF\_for\_CATIA\_V5', 'INTF\_for\_CATIA\_V5\_ADV', 'Manikin', 'Manikin\_Analysis', 'Legacy\_Migration', 'Flexible\_Modeling', and 'VERIFY'. The 'Floating options' section includes 'Reverse\_Engineering', 'Digital\_Rights\_Mgt', and 'Tolerance\_Analysis'.
- Edit configuration (Parametric5):** Shows the configuration name 'Parametric5' and description 'Manikin Analysis'. The 'License to run' section includes 'PROE\_Flex3C' and 'PROE\_AdvSE'. The 'Startup Extensions' list includes 'Reverse\_Engineering', 'Advanced\_Framework', 'INTF\_for\_CATIA\_V5', 'INTF\_for\_CATIA\_V5\_ADV', 'Legacy\_Migration', 'Flexible\_Modeling', and 'VERIFY'. The 'Floating options' section includes 'Manikin\_Analysis', 'Manikin', 'Digital\_Rights\_Mgt', and 'Tolerance\_Analysis'.

Files created in parametric/bin folder



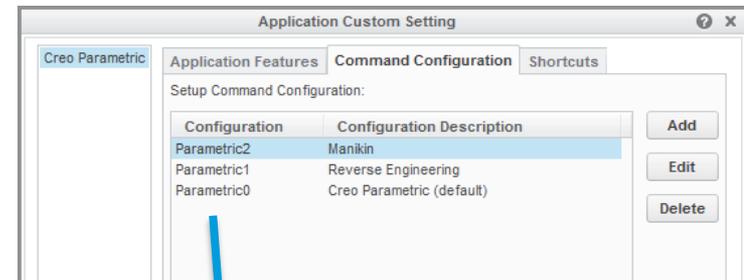
## Creo 2.0 f000 – m090

Reverse order of creation  
Order of Description column

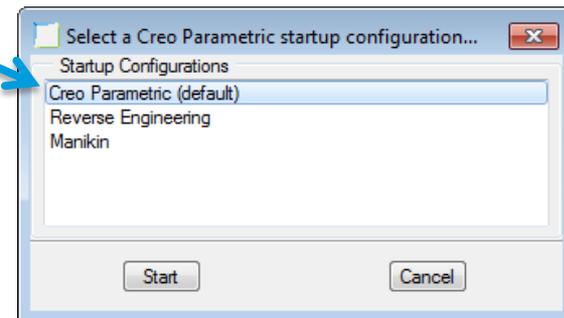
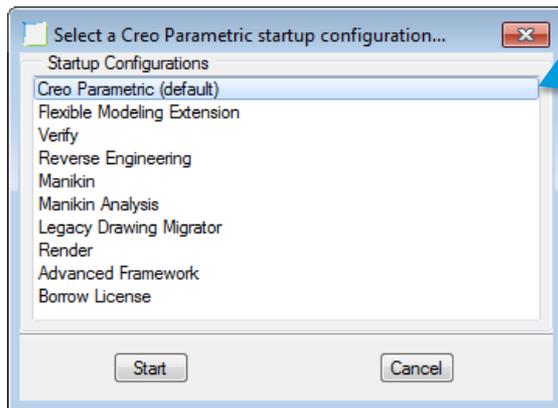


## Creo 2.0 m100 & all ProE

Alphabetical order of  
Configuration name



Default choice  
Should be 1<sup>st</sup>



## The Good:

- Buy few copies of expensive options and float them to any user
- All clients get the same licenses

## The Bad:

- Most users are not used to selecting the license at run time
- You have to exit and restart to get a license you might need

The Ugly:  
Configure unique licenses on client machines



Expert Framework



Manikin



Giving framework to Wilma requires  
reconfiguring two client machines

## Your License File

```
##### FLOATING License #####  
# Serviceable = Creo Enterprise SE (formerly Pro/ENGINEER)  
# Feature Name = PROE_Flex3C  
# Feature Version = 33.0  
  
##### Super Bundle 10114 Instance #####  
# Serviceable = Complete Machining Option  
# Feature Name = 10114  
# Feature Version = 33.0
```

The version changes with each release of Creo

Your users:

Need the active directory username for each user

The ptc.opt file

Located in:

`C:\Program Files\PTC\FLEXnet Admin License Server\licensing`

By default has two lines:

1. `REPORTLOG +"C:\Program Files\PTC\FLEXnet Admin License Server\logs\ptcreport.log"`
2. `TIMEOUTALL 7200`

## Creating Groups:

```
GROUP flintstone fred wilma pebbles dino
```



Group name



Group members

## Another group:

```
GROUP rubble barney betty bammbamm
```

## Reserve Licenses for a group:

```
RESERVE 4 PROE_Flex3c:VERSION=33.0 GROUP flintstone  
RESERVE 3 PROE_Flex3c:VERSION=33.0 GROUP rubble
```



Can be any option or Creo flavor  
ProE\_AdvSE – Foundation Creo  
10114 – Complete Machining Set

ptcstatus.bat output:

PROE_Flex3C	3	7	^(fred@coaststarlight)	PROE_Flex3C	stonequarry	7788	3750
			(barney@southwestchief)	PROE_Flex3C	stonequarry	7788	3472
			(betty@californiazephyer)	PROE_Flex3C	stonequarry	7788	4837
			(flintstone@)	PROE_Flex3C	stonequarry	7788	0
Reserved, in use			(flintstone@)	PROE_Flex3C	stonequarry	7788	0
			(flintstone@)	PROE_Flex3C	stonequarry	7788	0
Reserved, not in use			(rubble@)	PROE_Flex3C	stonequarry	7788	0

Fred has borrowed this license

^(fred@coaststarlight)

Why change the order of licenses to run?

Large group of users  
Continually changing



License to run

PROE_AdvSE
PROE_Flex3C

▲  
▼

Smaller group of users  
Mostly static



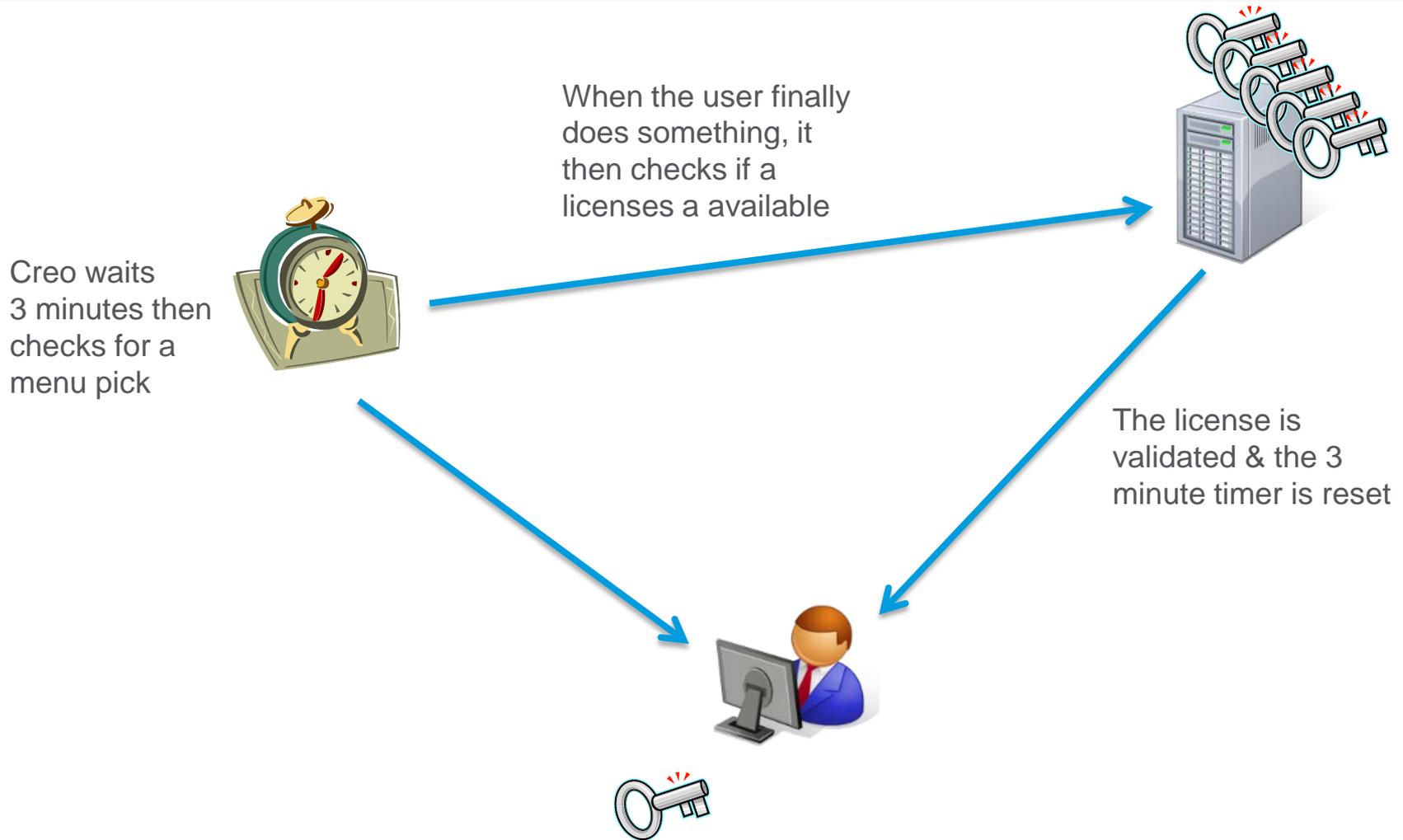
License to run

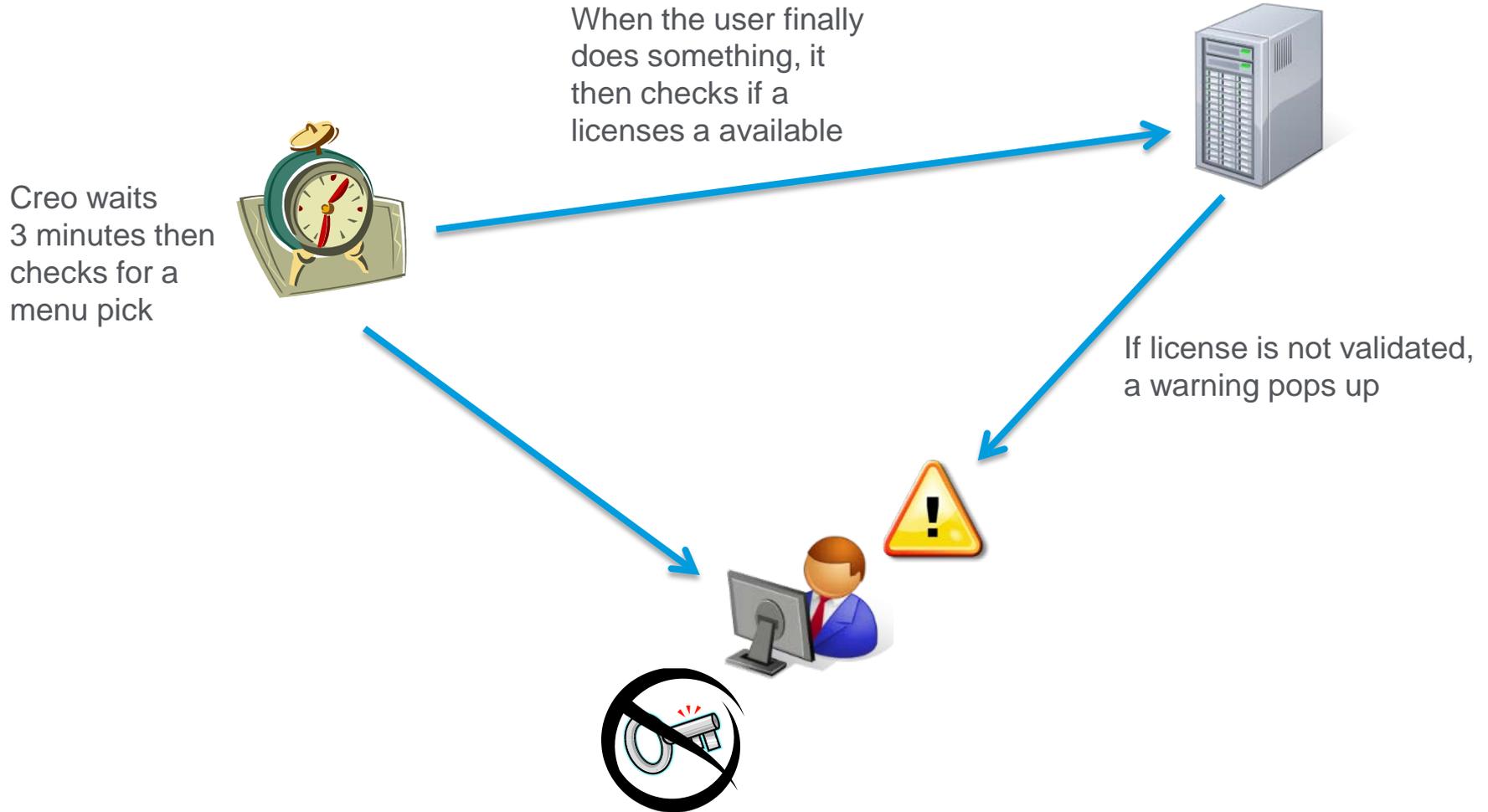
PROE_Flex3C
PROE_AdvSE

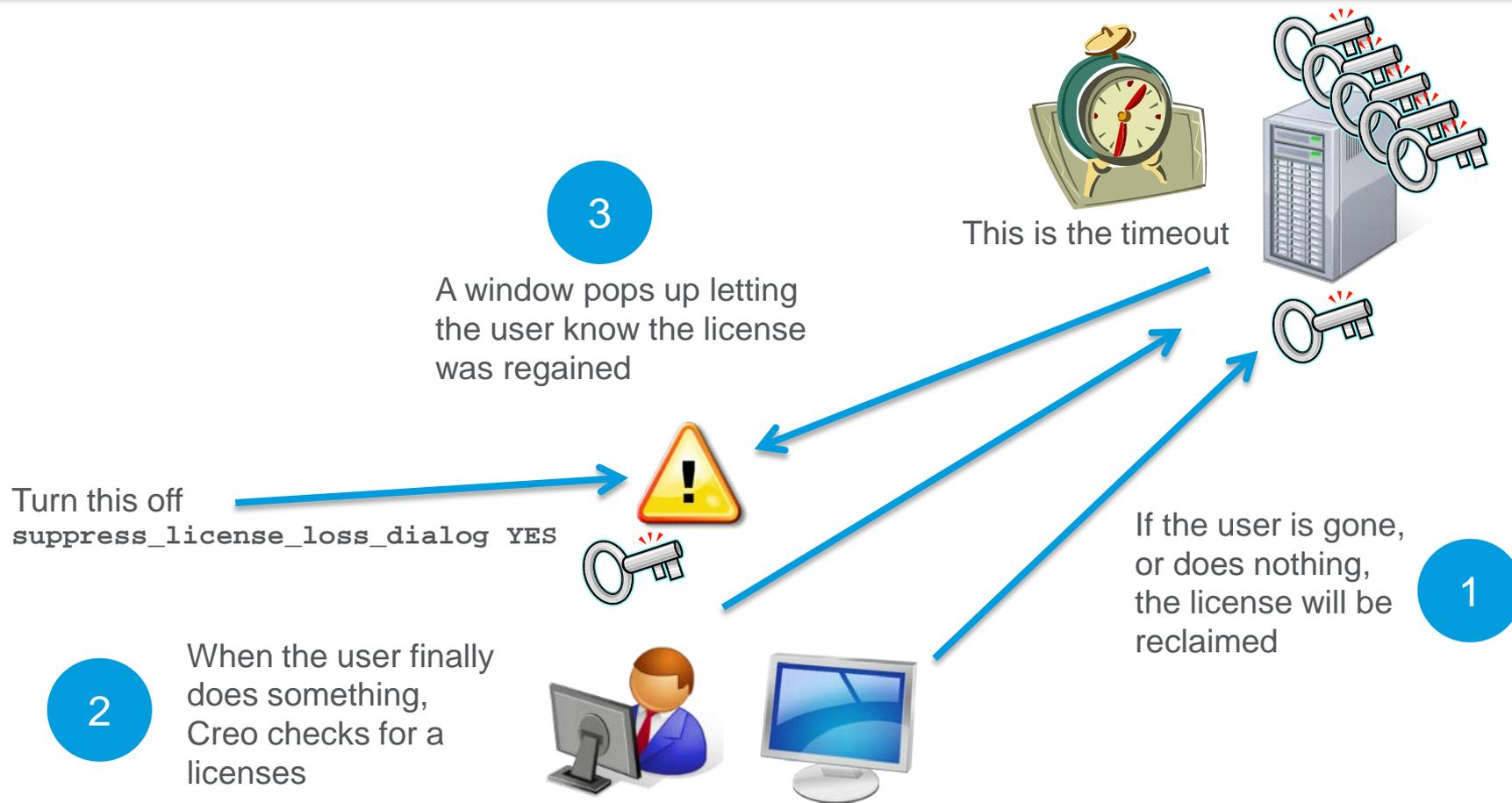
▲  
▼

I reserve for this group

Let anyone use  
PROE\_AdvSE







**Default timeout is  
2 hours!**

Three general categories

1. Working hard on Creo most of the day
2. Meetings or product research, big breaks in usage
3. Writing a document, in Creo very little

Floating Licenses are so you can take advantage of this varied usage

2 hour timeout means almost no licenses would be released

Minimum timeout is 20 minutes

**TIMEOUTALL 1200**

```
REPORTLOG +"C:\Program Files\PTC\FLEXnet Admin License Server\logs\ptcreport.log"  
TIMEOUTALL 1200  
GROUP flintstone fred wilma pebbles dino  
RESERVE 4 PROE_Flex3c:VERSION=33.0 GROUP flintstone  
GROUP rubble barney betty bammamm  
RESERVE 3 PROE_Flex3c:VERSION=33.0 GROUP rubble
```

You have to track licenses to know

ptcstatus command reports the current usage

Use information from it to build data files at 15 minute intervals

Need Perl for this script:

Suggest "Active Perl" <http://www.activestate.com/activeperl>

## Track\_licenses.bat:

1. `set PATH=%PATH%;"C:\ptc\Creo  
2.0\Parametric\bin\;"C:\Perl64\bin\perl.exe"`
- 2.
3. `ptcstatus.bat /nopause | perl -ne "print $1, \"\t\",  
scalar localtime(time), \"\t\", $2, \"\n\" if $_ =~  
\s+(PROE_Flex3C)\s+(\d+)\s+\d+/">>c:\PTC\tracking\data-FLEX3C.txt`
4. `ptcstatus.bat /nopause | perl -ne "print $1, \"\t\",  
scalar localtime(time), \"\t\", $2, \"\n\" if $_ =~  
\s+(PROE_AdvSE)\s+(\d+)\s+\d+/">>c:\PTC\tracking\PROE_AdvSE.txt`
5. `ptcstatus.bat /nopause | perl -ne "print $1, \"\t\",  
scalar localtime(time), \"\t\", $2, \"\n\" if $_ =~  
\s+(Mathcad)\s+(\d+)\s+\d+/">>c:\PTC\tracking\data-Mathcad.txt`

# How Many Licenses?

```
ptcstatus.bat /nopause | perl -ne "print $1, \"\t\",  
scalar localtime(time), \"\t\", $2, \"\n\" if $_ =~  
/\s+(PROE_Flex3C)\s+(\d+)\s+\d+/ ">>c:\PTC\tracking\data-FLEX3C.txt
```

Look for this:

```
(PROE_Flex3C)
```

Append the data to this file:

```
">>c:\PTC\tracking\data-FLEX3C.txt
```

The output line is tab delimited.

```
PROE_Flex3C      Fri May  9 11:46:51 2014  11
```



Create a scheduled task to output data periodically

```
schtasks /create /sc minute /mo 15 /ru "System" /tn "Track PTC Licenses" /tr C:\PTC\Track_licenses.bat
```

# How Many Licenses?

Create a scheduled task to output data periodically

```
schtasks /create /sc minute /mo 15 /ru "System" /tn "Track PTC Licenses" /tr C:\PTC\Track_licenses.bat
```

run the script every 15 minutes:

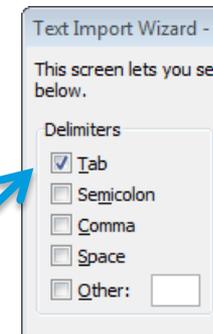
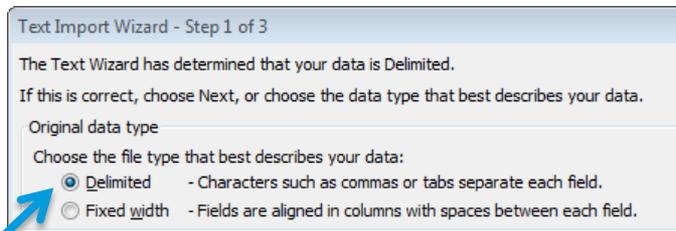
```
/sc minute /mo 15
```

Name of the scheduled task:

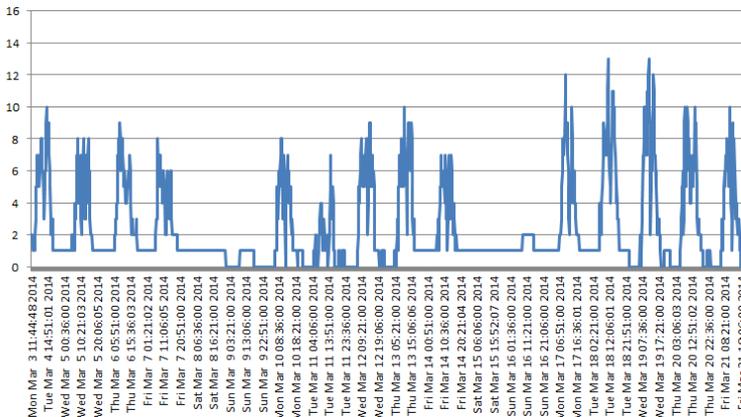
```
/tn "Track PTC Licenses"
```

Command to run: (my bat file)

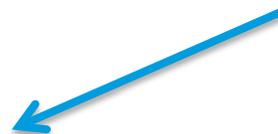
```
/tr C:\PTC\Track_licenses.bat
```



Import data file into Excell as tab delimited



	A	B	C
4036	PROE_Flex3C	Tue Apr 15 09:06:00 2014	7
4037	PROE_Flex3C	Tue Apr 15 09:21:00 2014	10
4038	PROE_Flex3C	Tue Apr 15 09:36:00 2014	11
4039	PROE_Flex3C	Tue Apr 15 09:51:01 2014	12
4040	PROE_Flex3C	Tue Apr 15 10:06:00 2014	9
4041	PROE_Flex3C	Tue Apr 15 10:25:22 2014	11
4042	PROE_Flex3C	Tue Apr 15 10:36:55 2014	13
4043	PROE_Flex3C	Tue Apr 15 10:51:03 2014	13
4044	PROE_Flex3C	Tue Apr 15 11:06:02 2014	10
4045	PROE_Flex3C	Tue Apr 15 11:21:02 2014	8
4046	PROE_Flex3C	Tue Apr 15 11:36:01 2014	9
4047	PROE_Flex3C	Tue Apr 15 11:51:01 2014	9
4048	PROE_Flex3C	Tue Apr 15 12:06:00 2014	9
4049	PROE_Flex3C	Tue Apr 15 12:21:00 2014	5
4050	PROE_Flex3C	Tue Apr 15 12:36:00 2014	3



- Will not track usage of groups or divisions

Flexera has software for that – may be worth the money

Or use “CADminTools license tracker”

See Edwin’s talk later this morning

Former ProE sites may still be running Imgrd

Imadmin comes with Creo

How to install??? No button in user interface!

Drag & drop license file here

## Default install location

C:\Program Files\PTC\FLEXnet Admin License Server

## Differences

Imadmin bin

=====

ptcflush.bat

ptchostid.bat

reconfigure.exe

ptcadminstartservice.bat

ptcstatus.bat

uninstall.exe

Imgrd bin

=====

i486\_nt\_ptc\_setvars.exe

Imtools.bat

Imutil.bat

ptcshutdown.bat

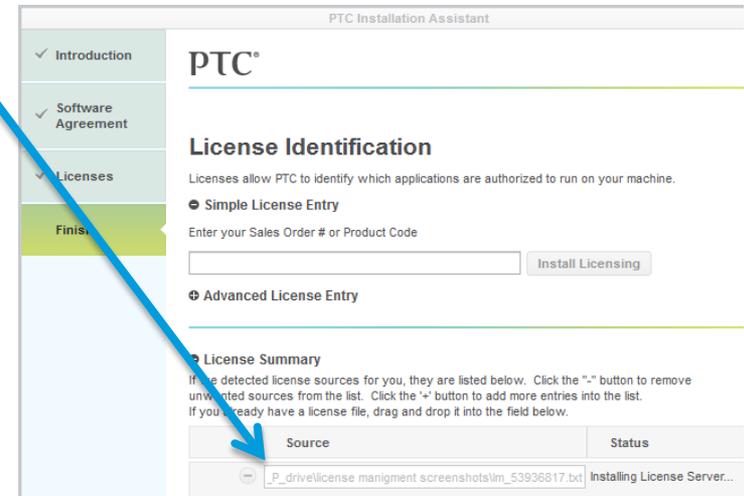
ptcflush.bat

ptchostid.bat

ptcsetup.bat

ptcstartserver.bat

ptcstatus.bat



Install starts automatically

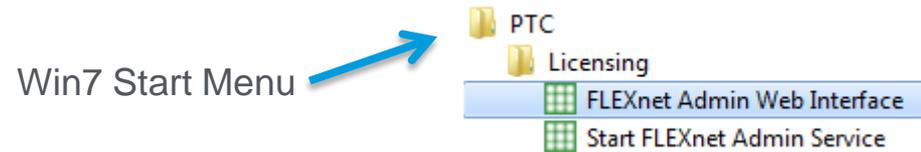
Imtools is still in the installation

`C:\Program Files\PTC\FLEXnet Admin License Server\i486_nt\obj`

Imadmin has a web interface

<http://stonequary:8080>

 License server name



## Advantages of Imadmin

- Reread license from web interface
- Ptcflush restricted by default to license admins
- Early return of borrowed licenses
- Email alerts can be set up

## Differences in Imadmin

- Ptcflush, (Imremove) requires admin access
- Remote shut down is disabled by default

Service default settings are here:

C:\Program Files\PTC\FLEXnet Admin License Server\conf\server.xml

## startup options:

-adminOnly <yes|no>

A value of 'yes' restricts usage of Imutils such as Imdown, Imreread, Imswitch, Imswitchr, Imremove and Imnewlog to license administrator who is by default root. If there is a UNIX group called Imadmin, then use is restricted to only members of that group. If root is not a member of this group, then root does not have permission to use any of the above utilities. On Windows no user can use the above command-line utilities. The Default value is 'yes'.

-allowLicenseReclaim <yes|no>

Controls whether or not one can reclaim licenses that are currently checked out. This setting is recorded in the configuration file and will apply to all subsequent executions until changed. Default value is 'no'.

-allowStopServer <yes|no>

Controls whether or not one can stop the license server from a local client (Imadmin or the web UI). This setting is recorded in the licens server configuration file and will apply to all subsequent executions until changed. Setting this value to 'no' will also force the option -allowRemoteStopServer to 'no'. The default value is 'yes'.

-allowRemoteStopServer <yes|no>

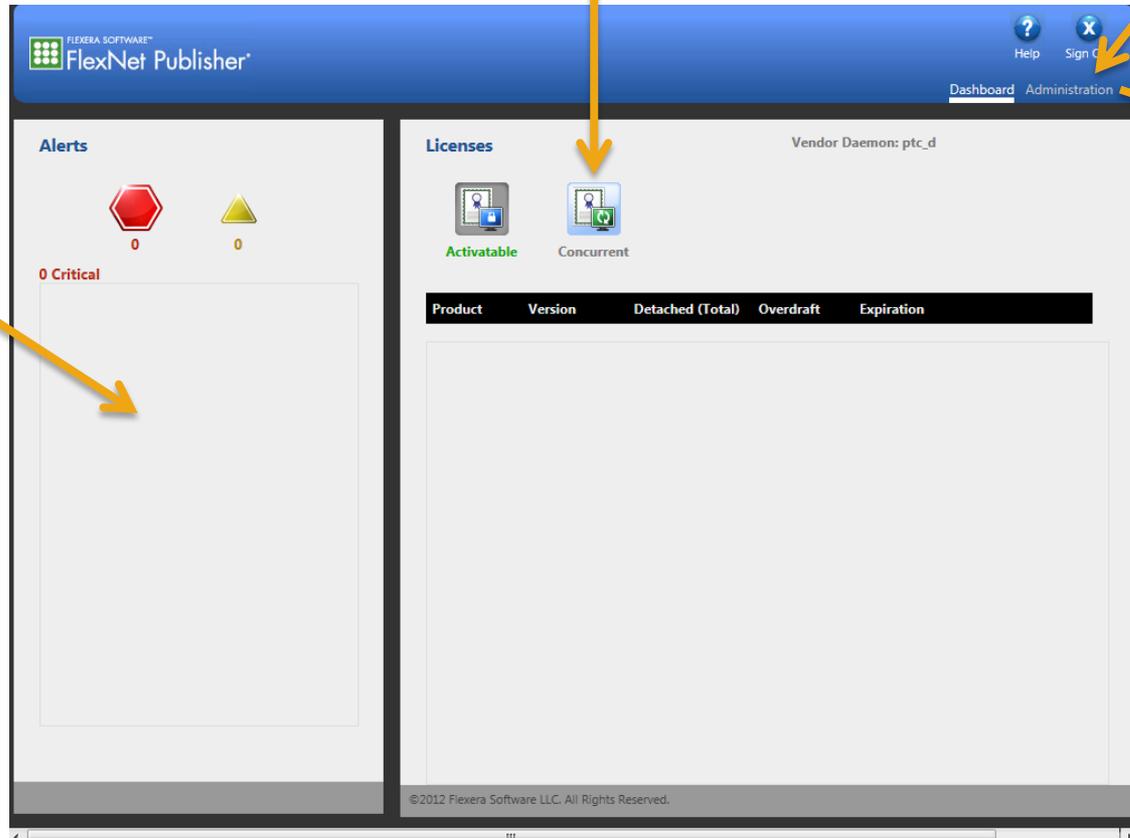
Controls whether or not one can stop the license server from a remote client (Imadmin or the web UI). This setting is recorded in the licens server configuration file and will apply to all subsequent executions until changed. The default value is 'no'

Waiting on PTC for recommend process  
To modify these settings.

Web User Interface

Creo Licenses shown here

Admin Login



Alerts

**Sign In**

User Name:

Password:

Remember me

Default =  
admin  
admin

Must change  
after login

## Update license file

Read new license file

The screenshot shows the FlexNet Publisher administration interface. The top navigation bar includes the user name 'admin', 'Help', and 'Sign Out' buttons. The main content area is titled 'Vendor Daemons' and features an 'Import License' button. Below this is a table with the following data:

Name	Status	FlexNet Publisher Version	Port	Administer	Delete
ptc_d	Up	11.10	49188	<a href="#">Administer</a>	<a href="#">Delete</a>

The footer contains the text '©2012 Flexera Software LLC. All Rights Reserved.' and a 'Change Password' link.

This tab

See details

## Reread License – update ptc.opt

Stop the license

This tab

The screenshot displays the FlexNet Publisher Administration web interface. At the top, the user is logged in as 'admin'. The main content area is titled 'Vendor Daemon Configuration'. Under the 'Vendor Daemon Actions' section, there are two buttons: 'Stop' and 'Reread License Files'. Below this is a 'Report Log Name' field and a 'Rotate Report Logs' button. The 'General Configuration' section includes a 'License File or Directory' field with the value 'licensing/license.dat', a 'Vendor Daemon Location' field with the path 'C:\Program Files\PTC\FLEXnet Admin License Server\i486\_nt\obj\ptc\_d.exe', and a 'Vendor Daemon Port' section with radio buttons for 'Use default port' (selected) and 'Use this port: 0'. There is also a 'Restart Retries' field set to '3' and an 'Enable Date-based Versions' checkbox. At the bottom, there is a 'Vendor Daemon Log' section and 'Save' and 'Cancel' buttons. The footer contains copyright information for Flexera Software LLC and a 'Change Password' link.

## Alert Condition Setup

I only want these alerts

- Vendor daemon down
- Out of concurrent licenses
- Concurrent threshold exceeded

This tab

The screenshot shows the 'Alerts' configuration page in the FlexNet Publisher interface. The page is titled 'Alerts' and has a sub-section 'Send alerts to Dashboard:'. The page is divided into two main sections: 'Critical' and 'Important'. Each section contains a list of alert conditions with checkboxes to enable or disable them. The 'Alert Configuration' tab is selected in the left sidebar. An orange arrow points to the 'Alert Configuration' tab, and another orange arrow points to the 'Send alerts to Dashboard:' section.

Category	Alert Condition	Enabled
Critical	Vendor daemon down	<input checked="" type="checkbox"/>
	Out of activatable licenses	<input type="checkbox"/>
	Out of overdraft licenses	<input type="checkbox"/>
	Activatable license expired	<input type="checkbox"/>
	Out of concurrent licenses	<input checked="" type="checkbox"/>
	Concurrent license expired	<input type="checkbox"/>
Important	Date-based version expired	<input type="checkbox"/>
	Activatable threshold exceeded	<input type="checkbox"/>
	Overdraft license issued	<input type="checkbox"/>
	Activatable license expiring	<input type="checkbox"/>
	Concurrent threshold exceeded	<input checked="" type="checkbox"/>
	Concurrent license expiring	<input type="checkbox"/>
	Date-based version expiring	<input type="checkbox"/>

## Send alerts via email

`C:\Program Files\PTC\FLEXnet Admin License Server\examples\alerter.`

Modify the last line in runalerter.bat

```
From :      java -classpath lib\alerter.jar alerter.Alerter %CMD_LINE_ARGS%
To :       java -classpath "lib\alerter.jar;lib\*" alerter.Alerter %CMD_LINE_ARGS%
```

On the license server, open a command shell with “Run as Administrator”.

CD to the folder where the alerter is: `C:\Program Files\PTC\FLEXnet Admin License Server\examples\alerter`

Command syntax is:

```
runalerter.bat -port "8080" -user "<username>" -password "*****" -smtpServer "<SMTP
servername>" -smtpUser "<username>" -smtpPassword "*****" -toAddress "<email address>" -
fromAddress "<email address>" -interval "60"
```

where:

- user = the license server admin name. If you haven't changed it it's admin
- password = the license server admin password. You are forced to change this when you first log in as admin in the web interface.
- smtpServer = the name of your mail server
- smtpUser = your username on the mail server
- smtpPassword = your password on the mail server
- toAddress = The email address you want the alert sent to. Your address typically. If you have major domo, this can be a group
- fromAddress = Your email address
- interval = number of seconds to wait after an alert happens before the email gets sent.

**Important Note:** You have to leave the command window up. The process will exit, if you exit the window.

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Livermore, CA 94550

Check out my previous presentations

[ProE Admin 101](#)

[Creo Admin 101](#)

[Creo Admin 102](#)

[An Admins Guide to Product View Publishing](#)

# PTC<sup>®</sup> Live Global

[liveglobal.ptc.com](http://liveglobal.ptc.com)

## Licensing Log file

In the flexnet folder, look in Licensing/ptclmgrd.log

You can see:

- When and who has licenses
- When they have been released
- When someone has been denied a license
- When a license has been flushed manually

Allowable options in the ptc.opt file:

- EXCLUDE
- EXCLUDEALL
- GROUP
- HOST\_GROUP
- INCLUDE
- INCLUDEALL
- MAX
- RESERVE
- TIMEOUT
- TIMEOUTALL

Some of these are high overhead for the administrator.

I only use Group, Reserve, and Timeoutall.

## Laptop Install

Installing on a laptop or other machine with multiple NIC cards.

There are two common problems you will run into when trying to license to a laptop.

1. Windows will disable the NIC card if it's not plugged into a network. This is called media sensing
2. Since you likely have a wireless card and a hardwire NIC, there can be confusion between them.

## Media Sensing

Add this registry setting:

```
HKEY_LOCAL_MACHINE\System\CurrentControlSet\Services\Tcpip\Parameters\  
Name: DisableDHCPMediaSense  
Data type: REG_DWORD (Boolean)  
Value: 1
```

## Laptop Install – NIC sort order

The PTC\_HOSTID must be derived from the Physical Address of a network card installed on the machine

- The network card from which the PTC\_HOSTID was derived must be enabled but need not be connected to an active network
- Change the priority of desired network card

Open the Windows registry editor by running regedit from a command prompt or the Windows "Run" Menu.

Expand the following key

HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\NetworkCards

- This key will contain numbered folders corresponding to all of the network cards installed on the machine
- Locate the desired folder by matching the "Description" field in the Registry Editor to the "Description" line from the ipconfig /all output for the desired network card
- Rename this folder to number 1
- Close the registry editor
- Restart the machine

## Licensing through a firewall

Here is what you need to do.

Add the port to the daemon line in your licenses file.

```
SERVER __HOSTNAME__ PTC_HOSTID=<mac address> 7788  
DAEMON ptc_d __PTCD_PATH__ 7788
```

Then open that port in your firewall

## Borrowing Licenses

You can make it easy for your users to borrow licenses by giving them a shortcut to the borrow program.

Create a shortcut of <loadpoint>\parametric\bin folder\ptcborrow.bat

I renamed it and gave it a unique icon & put it on the users desktop

PTC status shows if you have borrowed a license with an up caret.



```
PROE_Flex3C
```

```
3
```

```
7
```

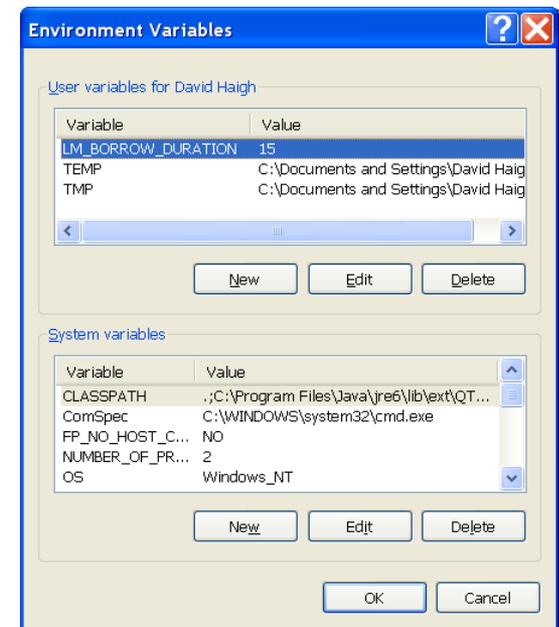
```
^(fred@coaststarlight)
```

```
PROE_Flex3C stonequarry 7788 3750
```

## To borrow for more than 5 days

Set up a Windows Environment Variable for the borrow duration  
set it at 15 days

```
LM_BORROW_DURATION
```



## Borrowing Simulate Licenses

In order to borrow these applications, you have to:

- Get in to simulate
- Do a solve before you exit Creo

If you just get into the application you will not be able to solve once your disconnected from the server.

Check ptcstatus to see that you have the up caret next to both of these:

```
MECBASICENG_License    0    33
MECBASICUI_License     0    33
```