



Engineering License Analysis and Simulation with Usage Metering

for



Engineering Analysis & Simulation in the Automotive Industry

April 2017

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Open iT Value Proposition – Key Business Drivers

Understand True License Usage

- Report true usage by user, department, application, feature

Proactive Alerts

- Don't just meter historical usage, manage through alerts

Attain a Better Negotiating Position

- Achieve better SLA by having a centralized licensing process

Optimize License Usage

- Ability to harvest inactive licenses

Reduce Costs

- Only pay for licenses you are using to maximize ROI

Customer Testimonials

“47% annual reduction on software maintenance costs”



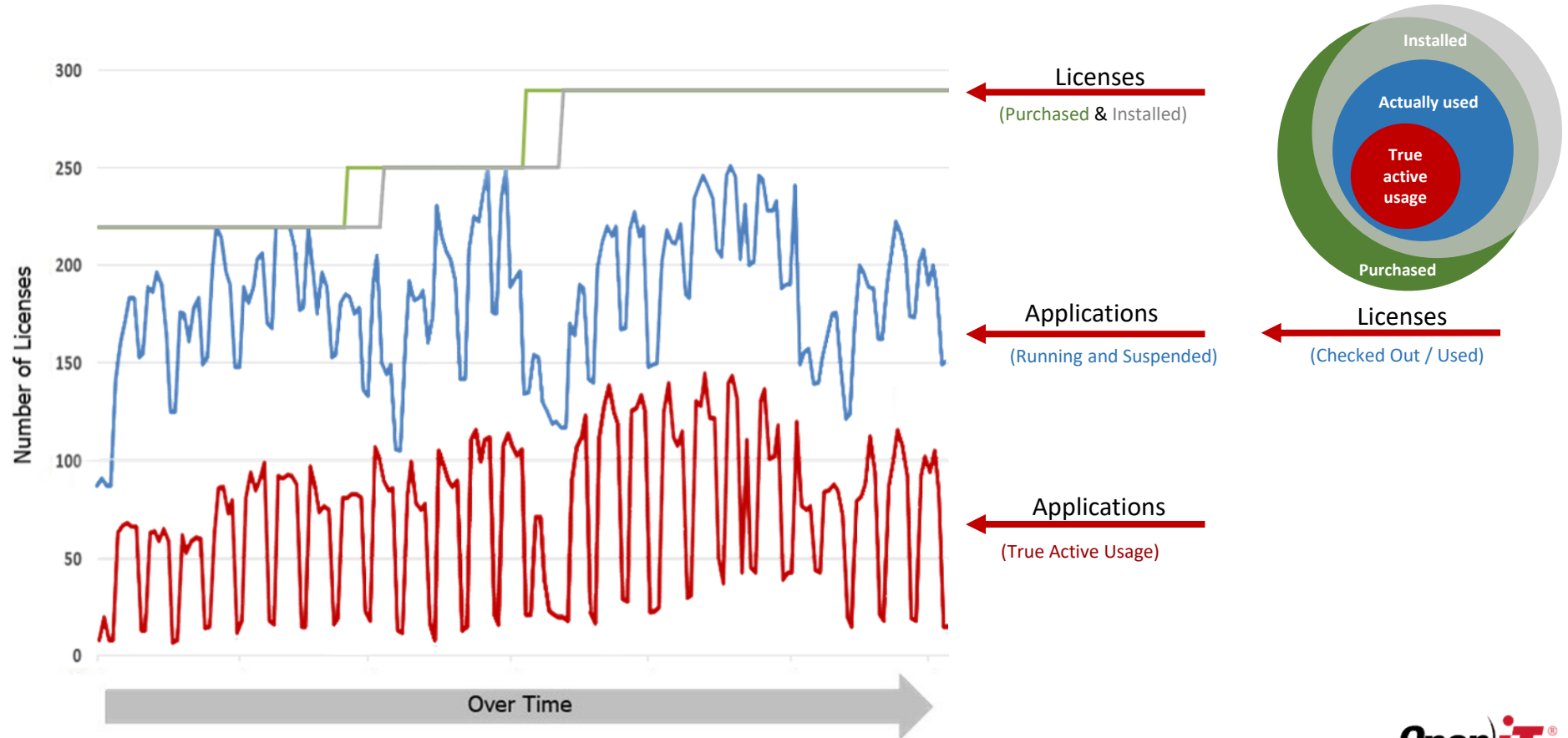
“\$1.35M in documented first year savings”



“10% cost reduction on overall software licenses”



What's Really Going on with my Licenses?

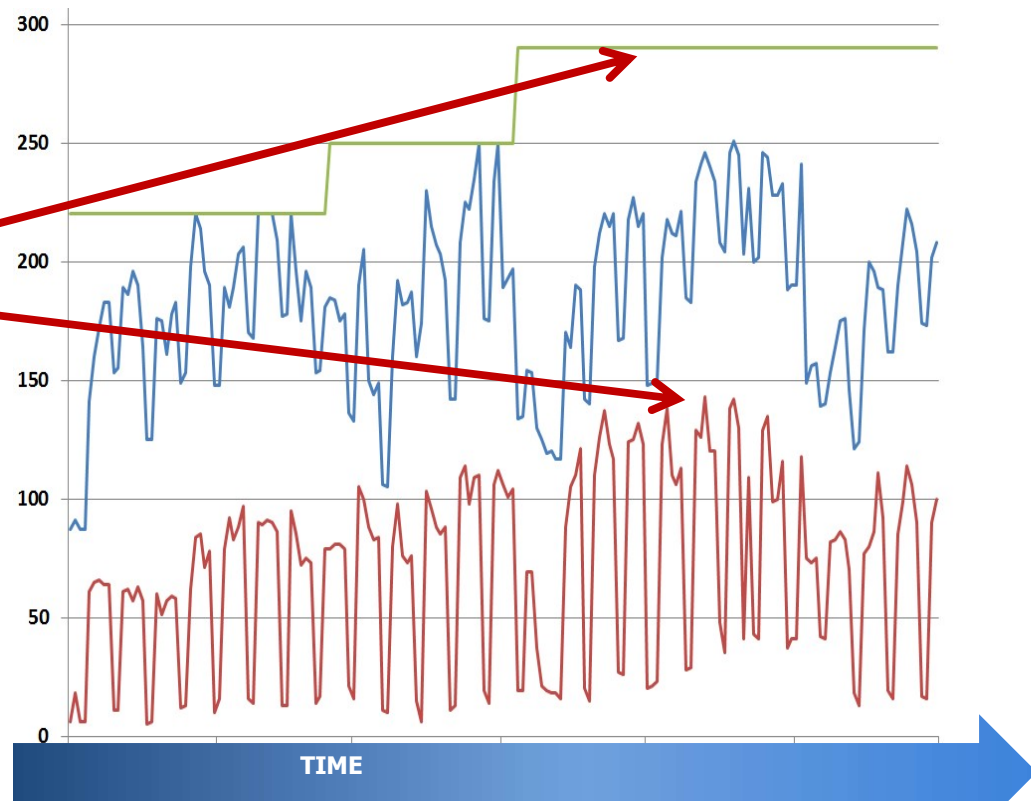


What's Really Going on with my Licenses?

Concurrent License Savings
Compare the difference
between:

- Max total concurrent (250)
- Max active concurrent (140)

In this case a difference of 150
licenses or
 $150 * \$30,000 = \$4,500,000$



Real-time License Usage

The screenshot displays the OpenIT License Monitor interface. The top navigation bar includes Home, Dashboard, Templates, Analysis, Reporting, Administration, and Resources. The left sidebar lists several dashboards: Autodesk Dashboard, Graphical Dashboard, Email alerts dashboard, denials dashboard, sample, and Customized Dashboard. The main content area is titled 'LICENSE MONITOR' and features a 'Product' dropdown menu set to 'Cadence_*'. Below this, it shows 'Collection Time: 2011-03-28 23:35' and 'Current Users : 427'. The 'License Usage' section contains a table of products with their respective user counts and status indicators.

Product	Current Users	Status
Cadence_cal	0	OK
Cadence_cgg	0	OK
Cadence_Combined	12	Warning
Cadence_det	0	OK
Cadence_mno	2	Warning
Cadence_phx	0	Warning
Cadence_sfo	7	OK
Cadence_svg	0	Warning
Cadence_tat	3	OK
Cadence_vbd	0	OK
Cadence_vvt	0	Warning

Real-time License Usage

The screenshot displays the OpenIT License Monitor interface. The top navigation bar includes Home, Dashboard, Templates, Analysis, Reporting, Administration, and Resources. The main content area is titled 'LICENSE MONITOR' and shows a list of license usage for various products under the 'Cadence_*' filter. The collection time is 2011-03-28 23:35, and there are 427 current users.

License Usage Summary:

Product	Usage
Cadence_cal	0
Cadence_cgg	0
Cadence_Combined	12
Cadence_det	0
Cadence_mno	2
Cadence_phx	0
Cadence_sfo	7
Cadence_svg	0
Cadence_tat	3

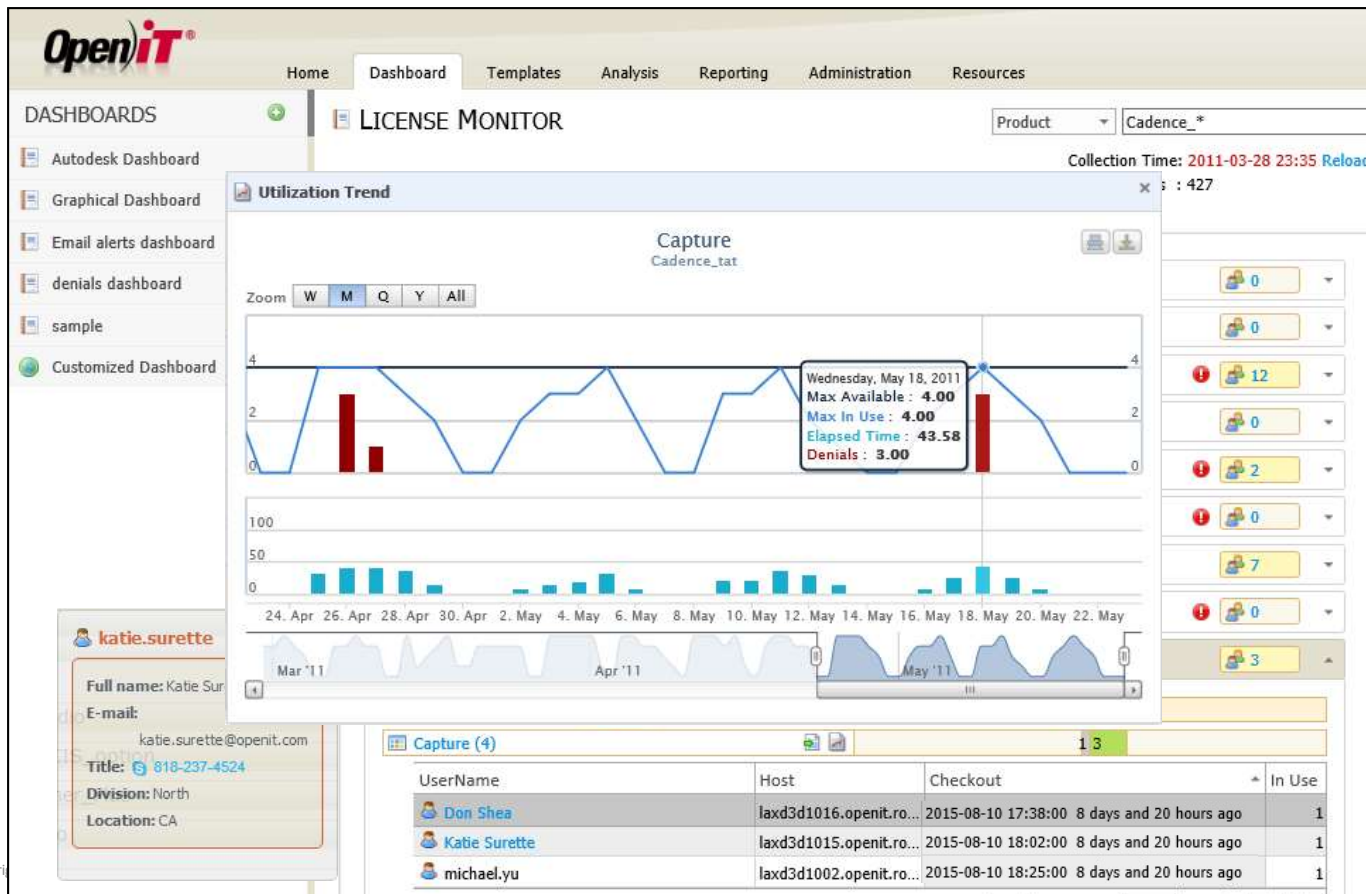
License Usage Details (Capture 4):

UserName	Host	Checkout	In Use
Don Shea	laxd3d1016.openit.ro...	2015-08-10 17:38:00 8 days and 20 hours ago	1
Katie Surette	laxd3d1015.openit.ro...	2015-08-10 18:02:00 8 days and 20 hours ago	1
michael.yu	laxd3d1002.openit.ro...	2015-08-10 18:25:00 8 days and 20 hours ago	1

User Profile (katie.surette):

- Full name: Katie Surette
- E-mail: katie.surette@openit.com
- Title: 818-237-4524
- Division: North
- Location: CA

Real-time License Usage



Global View - detail

The screenshot displays the OpenIT License Monitor interface. The main content area shows the 'License Monitor' section for the product 'ANSYS'. It includes a 'Settings' panel with a 'Sort by' dropdown set to 'Distinct Users' and a 'License Usage' section for the 'ANSYS_Combined' server. The server details include 'Server(s): 1055@LHR1SV15' and 'License File: C:\Program Files\Ansys Inc\Shared Files\Licensing\license.dat'. A table below lists various ANSYS features and their usage statistics, with a total of 31 users indicated by a yellow badge.

Features	Usage
struct (22)	3 19
prepost (40)	28 12
ansys (14)	9 5
anshpc (8)	4 4
acfd_par_proc (12)	10 2
agppi (25)	23 2
aihexa (11)	9 2
aimed (17)	15 2
ane3fl (4)	2 2
mechhpc (29)	27 2
acfd_cfx_solver (2)	1 1
aice_pak (4)	3 1
aice_solv (4)	3 1
meba (17)	16 1
acdl_explprof (1)	1

View Usage at Individual License Server

The screenshot displays the OpenIT License Monitor interface. The main content area shows the 'ANSYS_Ion' license server with a list of features and their usage. The 'ANSYS_Ion' server is highlighted in a grey bar, indicating it is selected. Below it, a table lists various ANSYS features with their respective user counts and usage bars.

Product: ANSYS

Settings: Sort by: Distinct Users











Collection Time: 2017-01-10 12:37
Current Users : 425

License Usage:

- ANSYS_Combined (31 users)
- ANSYS_Ion (28 users)**
 - Server(s): 1055@nhc0sv03
 - License File: C:\Flexlm\ansys\ansyslmd.lic

Features	Usage
struct (22)	3 19
preppost (30)	18 12
anshpc (8)	4 4
ansys (10)	7 3
acfd_par_proc (12)	10 2
aihexa (4)	2 2
aimed (8)	6 2
ane3fl (4)	2 2
acfd_cfx_solver (2)	1 1
agppi (23)	22 1
aice_pak (4)	3 1
aice_solv (4)	3 1
acdi_explprof (1)	1

License Campers

UserName	Host	Checkout	In Use
 sgo072	WS6400227	2016-12-06 23:28:00 3 months and 14 days ago	1
 sma136	WS6400251	2016-12-14 23:04:00 3 months and 6 days ago	1
 cbu025	WS6400024	2016-12-15 18:21:00 3 months and 5 days ago	1
 rdw015	WS6400220	2016-12-15 18:32:00 3 months and 5 days ago	1
 nco041	WS6400206	2016-12-15 21:17:00 3 months and 5 days ago	1
 rin009	WS6400225	2016-12-19 14:48:00 3 months and 1 day ago	1
 sgo072	WS6400245	2016-12-19 15:15:00 3 months and 1 day ago	1
 jpe191	WS6400199	2016-12-19 16:01:00 3 months and 1 day ago	1
 dch081	WS6400219	2016-12-19 16:24:00 3 months and 1 day ago	1
 rev008	WS6400216	2016-12-19 16:42:00 3 months and 1 day ago	1

Go to page: Show rows: 1-10 of 14

License Hogs

Report of Users more than 1 license of a feature at the same time

Time	Product	Application Name	User Id	Max Used	Elapsed Time
2017-Jan	AUTODESK_Global	85795PDSP_2015_OF	Kirsten.Torres	2	228.00 h
		85871ACD_2016_OF	Shirley.Jordan	3	290.17 h
		85995PDSPRM_2016_OF	Clifford.Padilla	2	143.33 h
2017-Feb	AUTODESK_Global	85795PDSP_2015_OF	Marjorie.Miller	2	305.67 h
		85871ACD_2016_OF	Natalie.Ford	2	210.58 h
			Shirley.Jordan	2	110.08 h
		Autodesk Product Design Suite Standard [85813PDSS_F]	Penny. Galan	2	5.25 h
		Autodesk Product Design Suite Standard 2015 [85794PDSS_2015_OF]	Penny. Galan	2	5.25 h
2017-Mar	AUTODESK_Global	85795PDSP_2015_OF	Kirsten.Torres	2	331.79 h
			William.Porter	2	64.88 h
		85871ACD_2016_OF	Betsy.Wooten	2	470.08 h
			Natalie.Ford	2	139.67 h
			Rose.Myers	3	155.83 h
		AutoCAD Mechanical 2011 [54900AMECH_PP_2011_OF]	Thomas.Lowe	2	405.25 h

Configurable Dashboards & Alerts

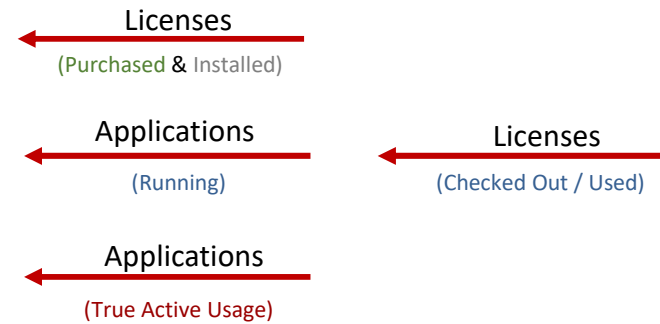
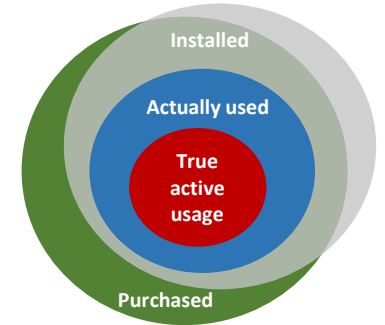
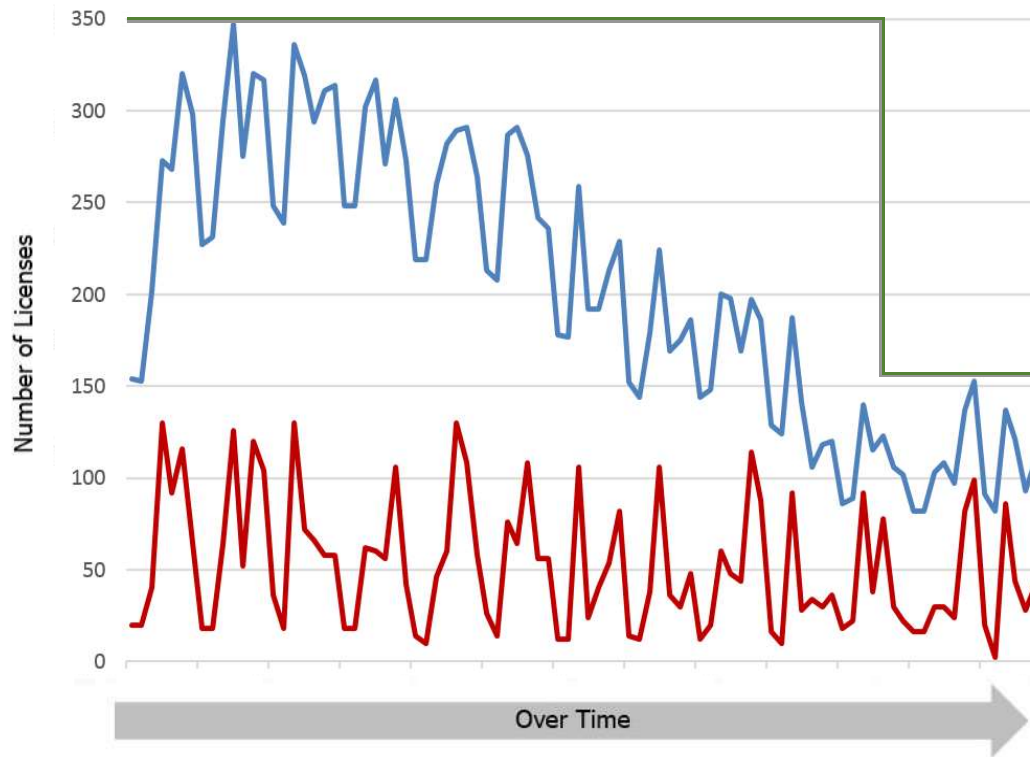
The screenshot displays the OpenIT software interface. On the left, a sidebar lists various dashboards: Autodesk Dashboard, Graphical Dashboard, Email alerts dashboard, denials dashboard, sample, and Customized Dashboard. The main area shows an 'Update Dashboard' dialog box with fields for Name, Description, and a list of available portlets. Below this, a 'CUSTOMIZED DASHBOARD' is shown with several components:

- Approaching Max: Max Utilization >= 90**: A table showing product utilization.

Product	Feature Name	Max...	In Use	Curr...
Ansys_Combined	ane3f	2	2	100%
Ansys_hou	agppi	1	1	100%
Ansys_hou	ansys	2	2	100%
Ansys_lon	ane3f	2	2	100%
Cadence_Combined	Concept_HDL_studio	2	2	100%
- Long Checkout: Duration >= 48**: A table showing checkout times for various products.

Product	Feature Name	Checkout Time	User Name	Host Name	Full Name	Mail
Cadence_ffo	Allegro_Viewer_Plus	2015-08-10 11:32:00 PM	seeh_iao	houap103...		
Cadence_Combined	Allegro_Viewer_Plus	2015-08-10 11:32:00 PM	seeh_iao	houap103...		
Mentor_ent2	intexpflow	2015-08-10 11:30:00 PM	camila.treat	bosap104...		
Mentor_Combined	intexpflow	2015-08-10 11:30:00 PM	camila.treat	bosap104...		
Misc_mic2	NASTRAN	2015-08-10 11:29:00 PM	g9010915	dboap108...		
- License Efficiency: Last 365 Days**: A bar chart showing license efficiency over time. The y-axis ranges from 0 to 2,500, and the x-axis shows days from 0 to 14. The efficiency starts at approximately 2,000 and decreases steadily over the period.
- Top Usage Shares: Last 365 Days**: A pie chart showing usage by divisions. The chart is divided into four segments: East (dark blue), West (light blue), North (red), and South (green).

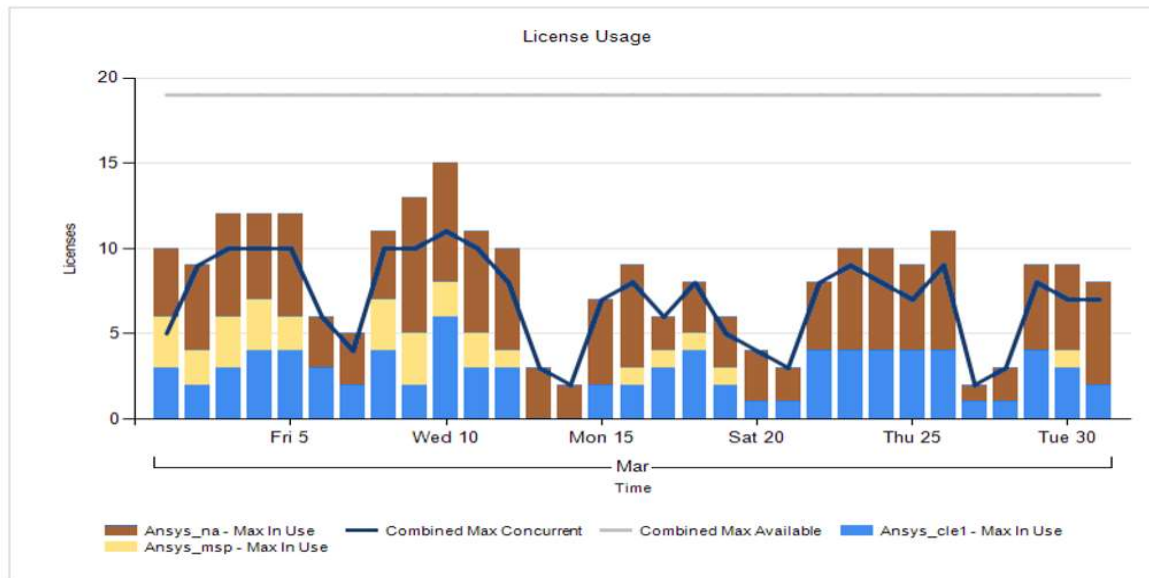
Optimize: Warn and reduce inactive sessions!



Base Enterprise License Analyzer License Optimizer Warn and Terminate **Open)IT**

Compare WAN vs. LAN Agreements

Usage Report for Application Name (Feature) *ansys*
Daemon (Server): *All*

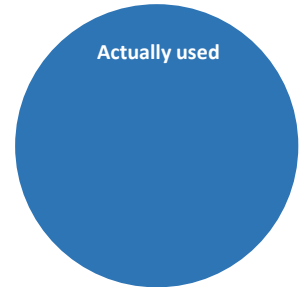
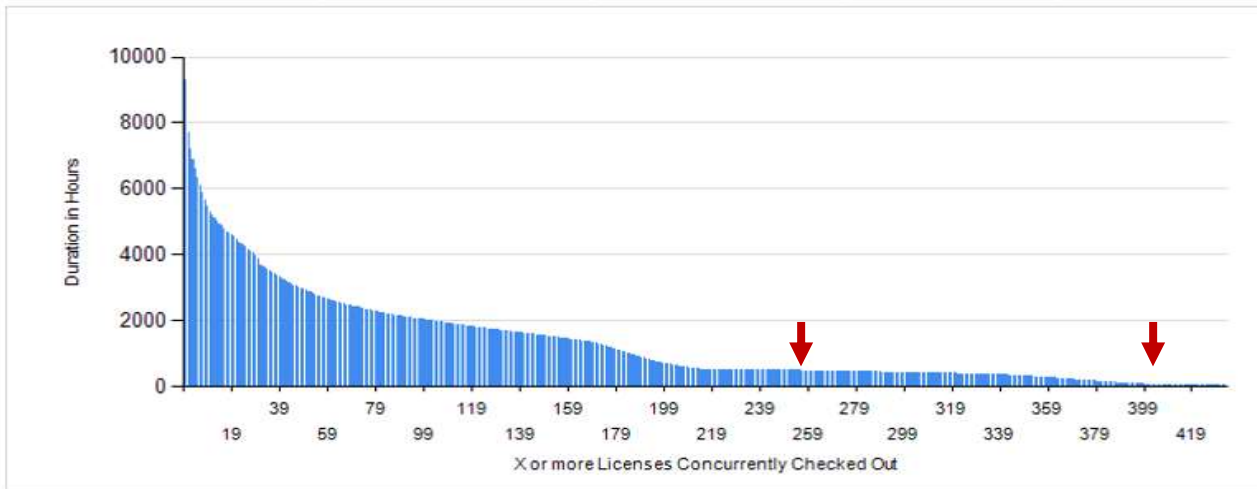


Report generated on: 6/2/2011 1:27:02 PM
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License Efficiency with Percentiles

License Efficiency Chart

Application Name	Max Available	Max In Use	Within 99% use ¹	Within 95% use ¹
ENOVIA - VPM Product Design Configuration [DER]	513	434	391	263

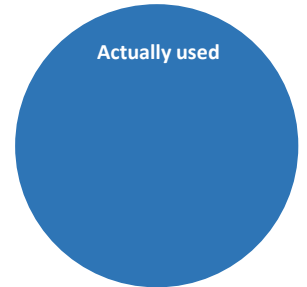
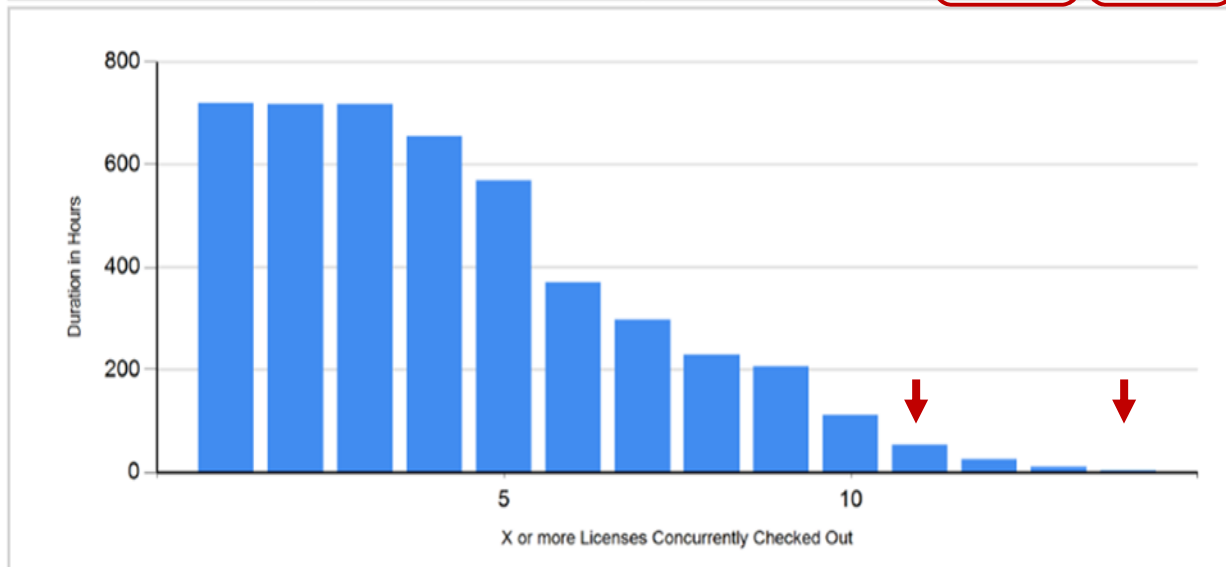


Minimum # of Licenses ²	Duration in Hours	Duration in % of Total
434	0.17	0.00 %
432	0.42	0.00 %
431	0.92	0.01 %
430	1.50	0.02 %
429	2.58	0.03 %
428	2.83	0.03 %

License Efficiency with Percentiles

License Efficiency Chart

Application Name	Max Available	Max In Use	Within 95%	Within 99%
GPFULL	14	14	11	13



Licenses	Duration in Hours	Duration in % of Total
14	3.75	0.52 %
13	10.33	1.44 %
12	25.83	3.59 %
11	53.92	7.49 %

New Reports – True vs False Denials (or Ultimate Denial!)

Event type		denied	false-denial	false-denial-local
Product	Feature	Events	Events	Events
adskflex-amsterdam	AutoCAD P&ID 2009 [60500PNID_2009_OF]	571.00	95.00	8.00
	AutoCAD P&ID Package [67700PNID_F]	571.00	95.00	8.00
adskflex-cyberjaja	AutoCAD Civil 3D 2008 [55400CIV3D_2008_OF]		102.00	
	AutoCAD P&ID 2009 [60500PNID_2009_OF]	218.00	4,966.00	211.00
	Autodesk Civil 3D Package [64900CIV3D_F]		102.00	
	AutoCAD P&ID Package [67700PNID_F]	218.00	4,966.00	211.00
adskflex-houston	AutoCAD 2009 [57600ACD_2009_OF]	1,984.00		2.00
	AutoCAD P&ID 2009 [60500PNID_2009_OF]	184.00	91.00	8.00
	AutoCAD Package [64300ACD_F]	1,984.00		2.00
	Autodesk NavisWorks Review Package [67400NAVREV_F]	47.00		
	AutoCAD P&ID Package [67700PNID_F]	184.00	91.00	8.00

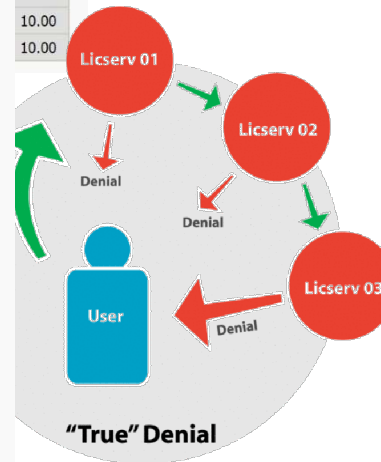
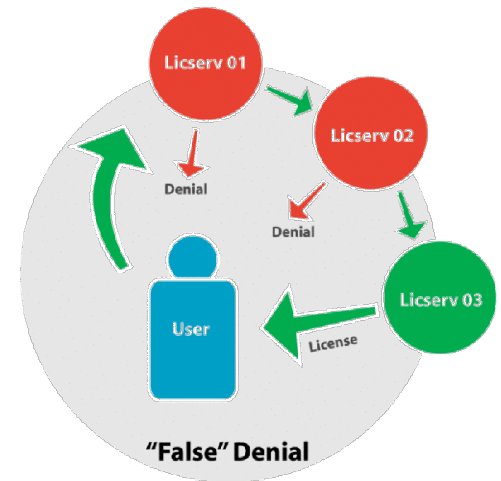
Details	Events
Licensed number of users already reached. (-4,342)	35,582.00
Licensed number of users already reached. (-4,342_10054 "")	16,109.00
All licenses are reserved for others. (-101,396)	9,221.00
0	6,036.00
Licensed number of users already reached (-4,342)	1,725.00
All named licenses are in use.	1,575.00
License server system does not support this version of this feature. (-25,334)	798.00
License server does not support this feature (-18,328)	679.00
Licensed number of users already reached. (-4,342_131 "Connection reset by peer")	448.00
Users are queued for this feature. (-24,332)	255.00
2 licenses	196.00
Clock difference too large between client and server (-34,336)	84.00
User/host not on INCLUDE list for feature. (-39,349)	57.00
License server does not support this version of this feature (-25,334)	43.00
All licenses are reserved for others. (-101,396_131 "Connection reset by peer")	33.00
User/host not on INCLUDE list for feature. (-39,349_10054 "")	26.00
Users are queued for this feature. (-24,332_131 "Connection reset by peer")	3.00
Licensed number of users already reached. (-4,342_10053 "")	3.00
17 licenses	2.00
14 licenses	2.00
3 licenses	2.00

Case 2 - Where actually checke

Location: 0
Generated at: 2
Query period: 2

A "false" denial occurs when a user is denied a license at the first request, but then receives a license from another independent license server.

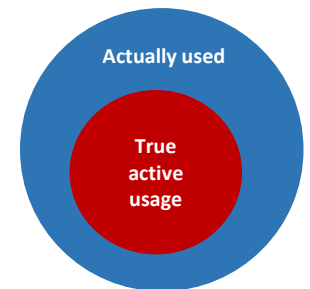
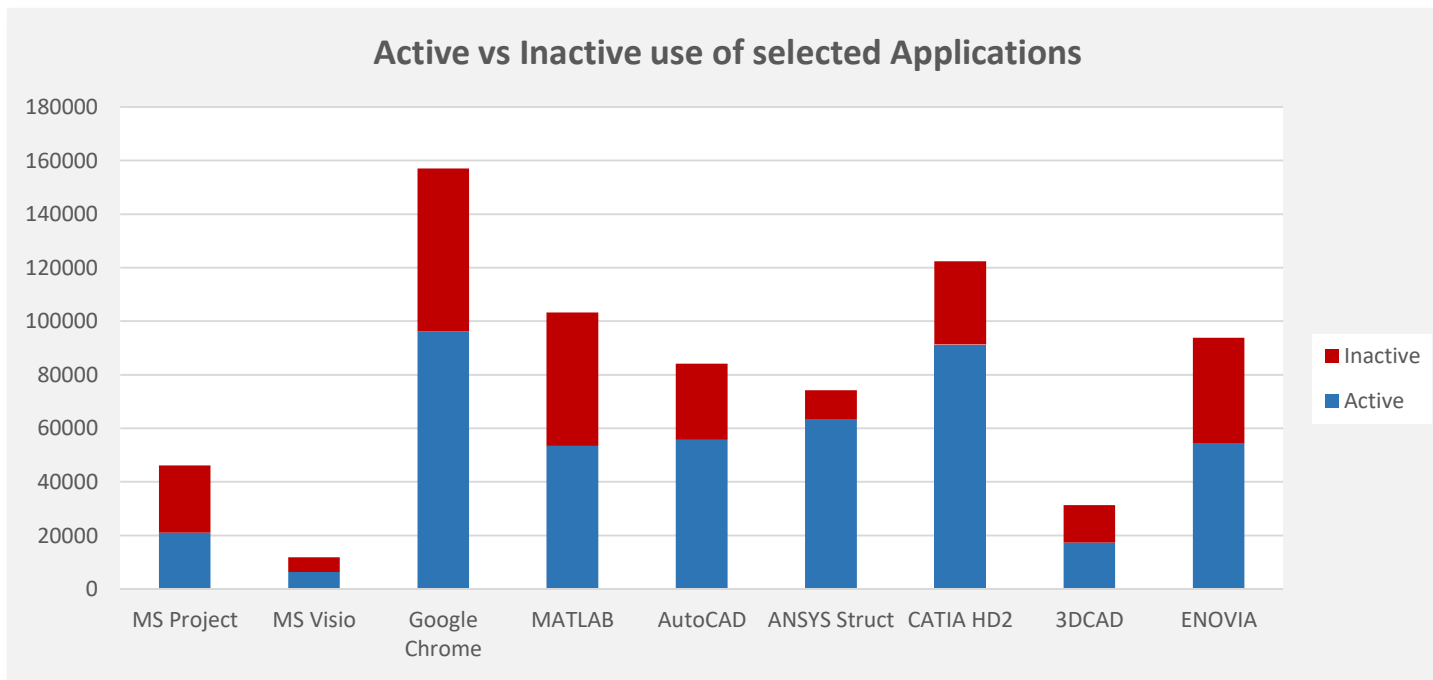
In the figure to the left, you will have two false denials and null true.



A "true" denial occurs when a user is denied a license from every license server that the user tries to draw licenses from.

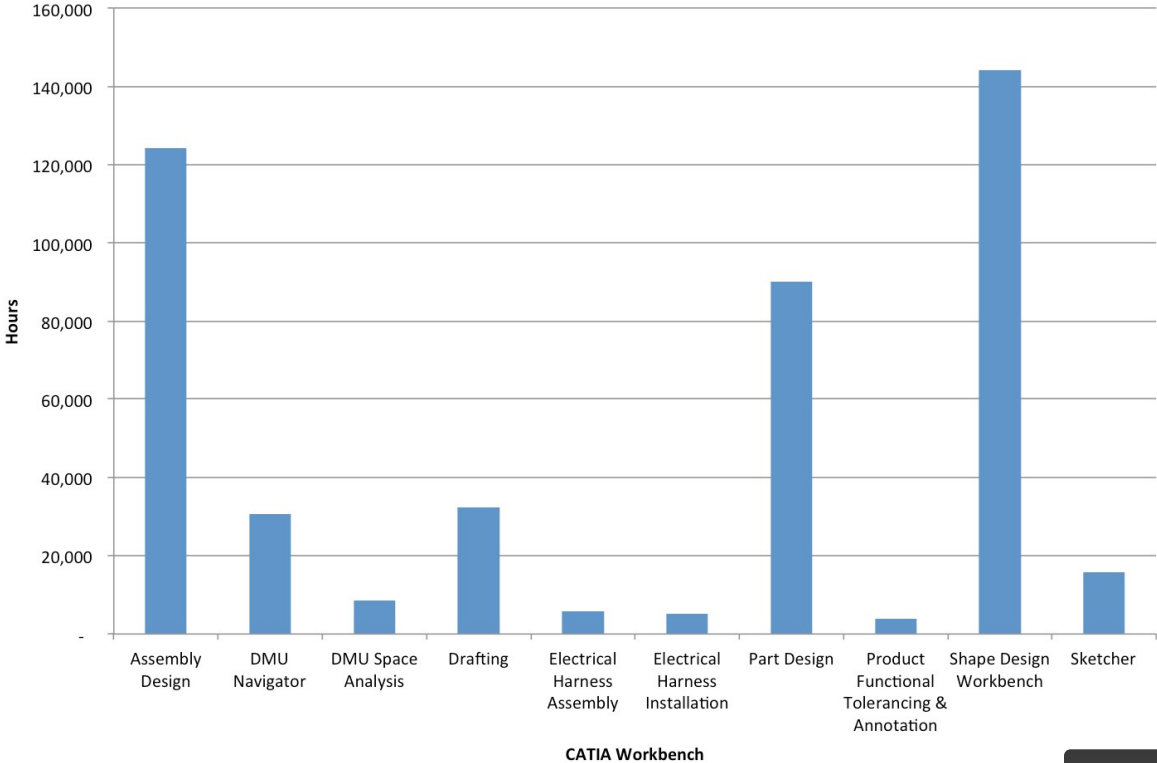
You can even see why the license has been denied.

Perceived Use vs. Actual Use



Catia Module Use

CATIA Workbench Usage



System Analyzer

Application Tracker



Utilizing Open IT's desktop client

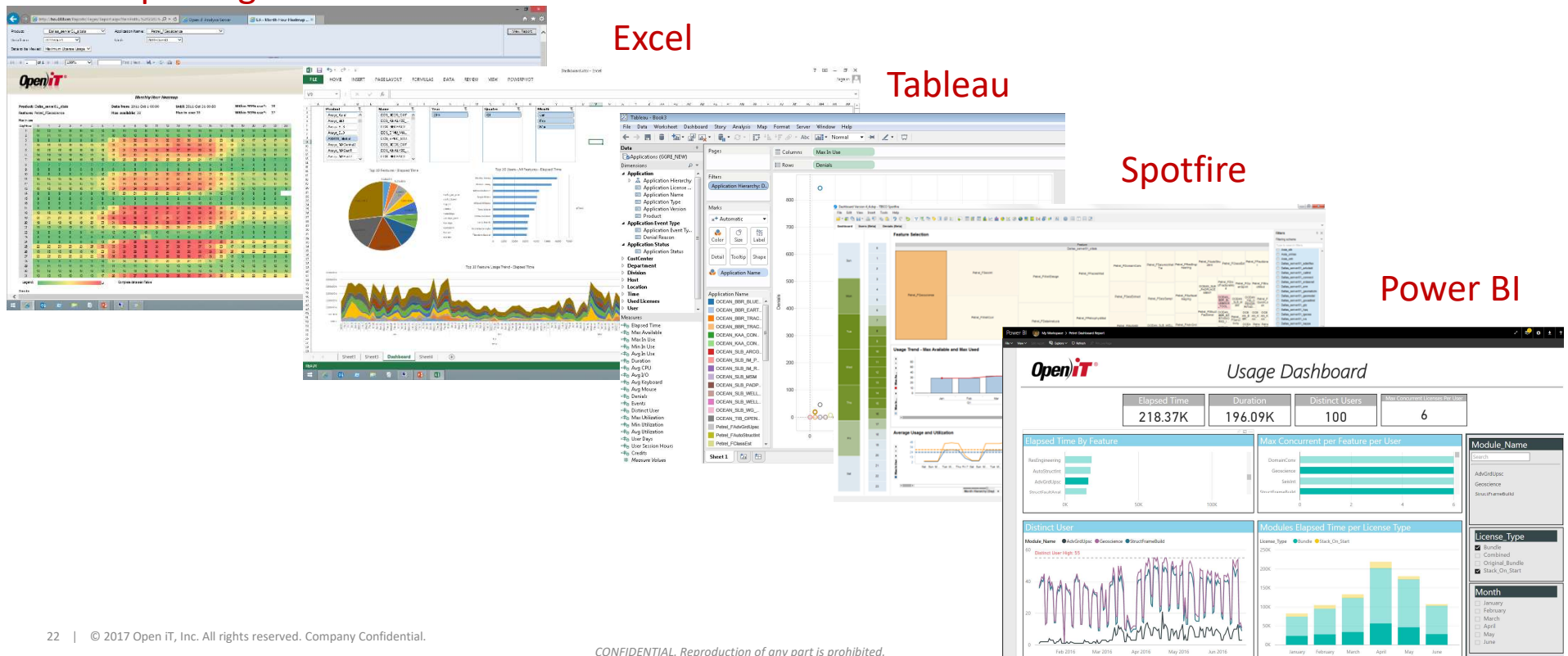
Time	Product	Product id	Feature	Serial number	Release number	License type	Domain	Host	Operating system	Count
2015/10/08	A001	A001	AutoCAD 2012 - English	393-91959822	18.2.51.0	Network	HOU_EP	HOUW110159	windows_7_x64_sp1	1.00
			AutoCAD LT 2012 - English	000-00000000	R17	Free Trial	HOU_EP	HOUW110159	windows_7_x64_sp1	1.00
				392-02047480	R17	Stand-alone	HOU_EP	HOUW120048	windows_7_x64_sp1	1.00
			Autodesk Navisworks Freedom 2014	000-00000000	R9	Free Trial	HOU_EP	HOUW120048	windows_7_x64_sp1	1.00
	Autodesk Navisworks Freedom 2015	000-00000000	R9	Free Trial	HOU_EP	HOUW110159	windows_7_x64_sp1	1.00		
	B001	B001	AutoCAD 2013 - English	393-51195769	19.0.55.0	Network	HOU_EP	HOUW120048	windows_7_x64_sp1	1.00
F001	F001	AutoCAD 2016 - English	396-29055932	20.1.49.0	Stand-alone	HOU_EP	HOUW110159	windows_7_x64_sp1	1.00	
2015/10/09	A001	A001	AutoCAD 2012 - English	393-91959822	18.2.51.0	Network	HOU_EP	HOUW110159	windows_7_x64_sp1	1.00
			AutoCAD LT 2012 - English	000-00000000	R17	Free Trial	HOU_EP	HOUW110159	windows_7_x64_sp1	1.00
				392-02047480	R17	Stand-alone	HOU_EP	HOUW120048	windows_7_x64_sp1	1.00
			Autodesk Navisworks Freedom 2014	000-00000000	R9	Free Trial	HOU_EP	HOUW120048	windows_7_x64_sp1	1.00
	Autodesk Navisworks Freedom 2015	000-00000000	R9	Free Trial	HOU_EP	HOUW110159	windows_7_x64_sp1	1.00		
	B001	B001	AutoCAD 2013 - English	393-51195769	19.0.55.0	Network	HOU_EP	HOUW120048	windows_7_x64_sp1	1.00
F001	F001	AutoCAD 2016 - English	396-29055932	20.1.49.0	Stand-alone	HOU_EP	HOUW110159	windows_7_x64_sp1	1.00	
2015/10/10	A001	A001	AutoCAD 2012 - English	393-91959822	18.2.51.0	Network	HOU_EP	HOUW110159	windows_7_x64_sp1	1.00
			AutoCAD LT 2012 - English	000-00000000	R17	Free Trial	HOU_EP	HOUW110159	windows_7_x64_sp1	1.00
			Autodesk Navisworks Freedom 2015	000-00000000	R9	Free Trial	HOU_EP	HOUW110159	windows_7_x64_sp1	1.00
	F001	F001	AutoCAD 2016 - English	396-29055932	20.1.49.0	Stand-alone	HOU_EP	HOUW110159	windows_7_x64_sp1	1.00

2015/10/11	F001	F001	AutoCAD 2016 - English	396-29055932	20.1.49.0	Stand-alone	HOU_EP	HOUW110159	windows_7_x64_sp1	1.00
	A001	A001	AutoCAD 2012 - English	393-91959822	18.2.51.0	Network	HOU_EP	HOUW110159	windows_7_x64_sp1	1.00
			AutoCAD LT 2012 - English	000-00000000	R17	Free Trial	HOU_EP	HOUW110159	windows_7_x64_sp1	1.00
				392-02047480	R17	Stand-alone	HOU_EP	HOUW120048	windows_7_x64_sp1	1.00
			Autodesk Navisworks Freedom 2014	000-00000000	R9	Free Trial	HOU_EP	HOUW120048	windows_7_x64_sp1	1.00
			Autodesk Navisworks Freedom 2015	000-00000000	R9	Free Trial	HOU_EP	HOUW110159	windows_7_x64_sp1	1.00
	B001	B001	AutoCAD 2013 - English	393-51195769	19.0.55.0	Network	HOU_EP	HOUW120048	windows_7_x64_sp1	1.00
	F001	F001	AutoCAD 2016 - English	396-29055932	20.1.49.0	Stand-alone	HOU_EP	HOUW110159	windows_7_x64_sp1	1.00

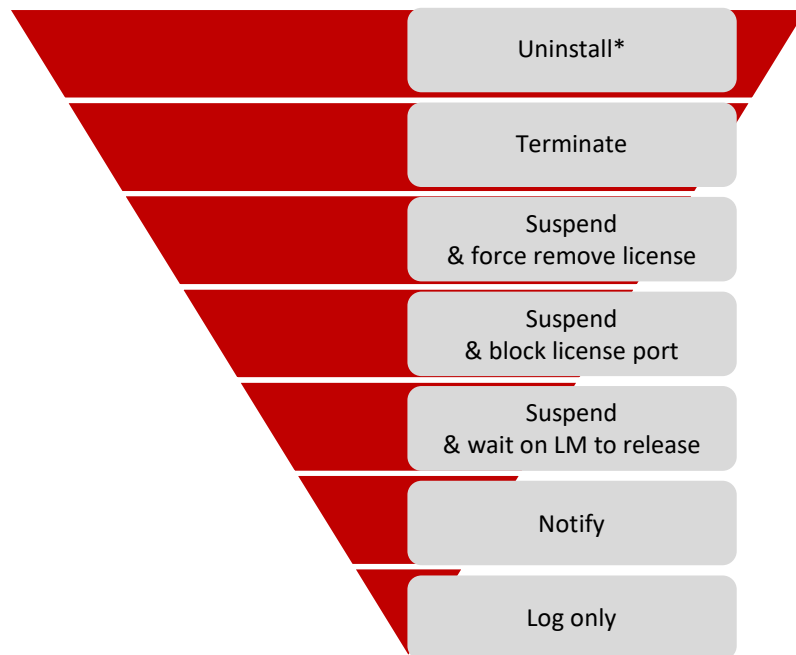
Integration with Popular BI Tools

- Open iT Data back-end integrates with a wide variety of BI Reporting Tools

Reporting Services

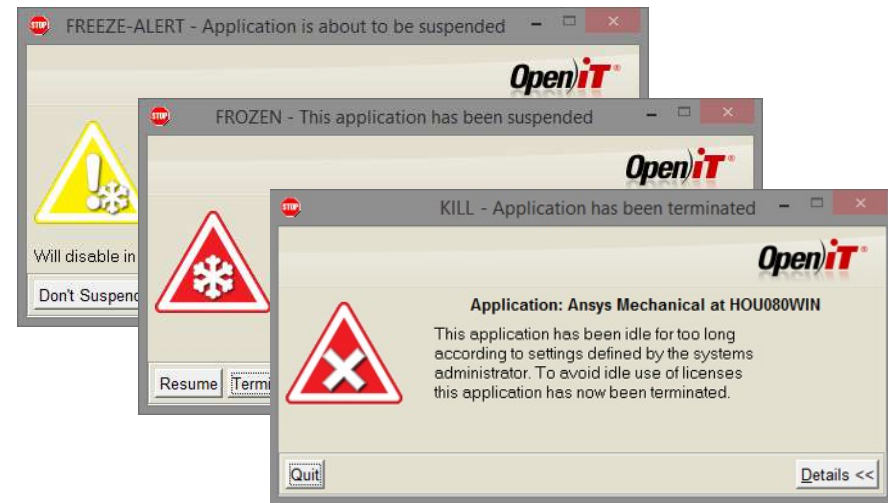


LicenseOptimizer extends its methods of actions



* - There is no automatic uninstall in Open iT, just a report. Open iT recommends that using the same tool for uninstalling that is used for installing (e.g. SCCM).

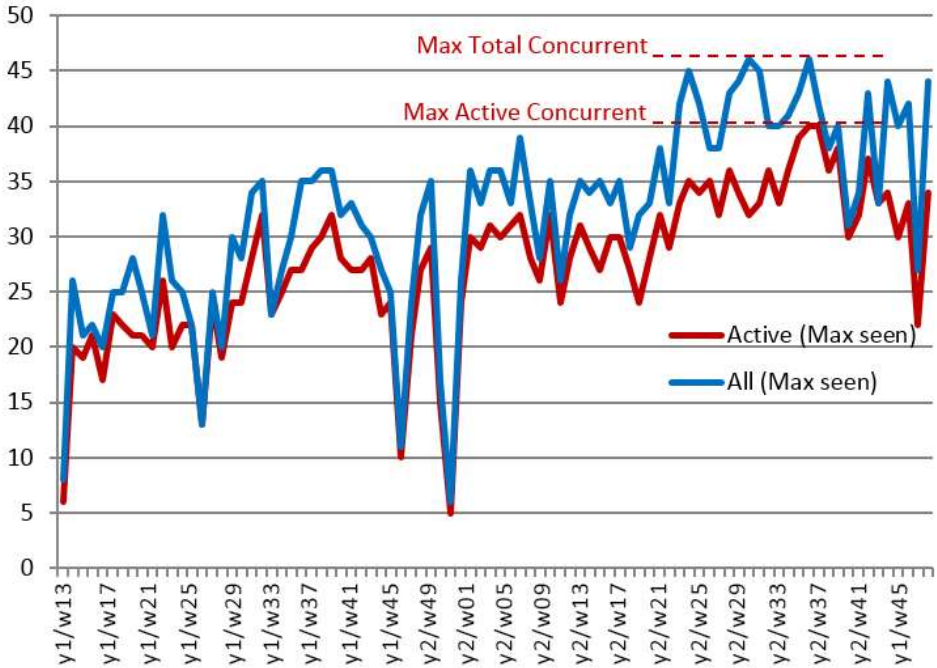
- Inactive licenses are automatically detected
 - Application usage will be logged
 - End-user notification of inactivity
 - Action taken is the least disruptive way for the end user while still invalidating requirement to have a license.
 - Methods, thresholds and trigger points are set individually for each application



OpeniT®

Oil Company, Houston: Hard Dollar Savings

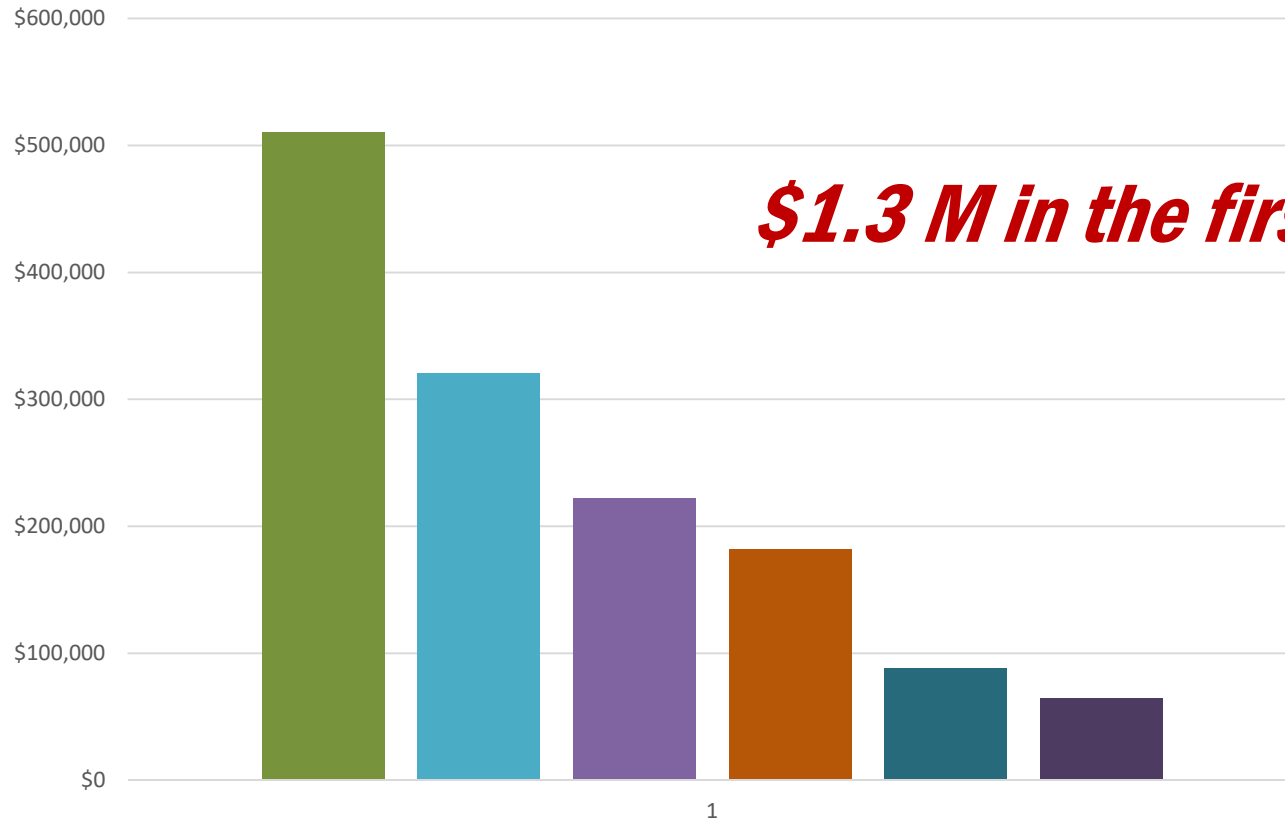
- Estimated Concurrent License Savings:
6 x \$135,000=\$810,000
- Alternative benefits:
Saves End-User time not having to close/open sessions



License
Optimizer
Suspend and
Harvest



CASE STUDY Results- Software License and M&S Savings



■ HOU to Perth ■ Dom to Intl ■ TCE Merge, M&S Cut ■ Core License Req. ■ Other Req. ■ M&S Cut



Linda Cole

Lcole@openit.com

 [linkedin.com/in/lindamcole](https://www.linkedin.com/in/lindamcole)

Thank you

Stop by our table in the Exhibition Area for more information.

