IAITAM ACE

May 7–9, 2024 The M Resort Las Vegas, NV

Optimize your SaaS & Subscription license spend

Finding your IAITAM Oasis

SAM Objectives

- Formerly mostly about compliance
- Today about cost optimization

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How much can you reduce your SaaS spend?

- Gartner says that at least 25% of purchased SaaS software is un-used
  - "Shelfware – The CIO's Missing Key Metric and Cost Cutting Imperative" – Gartner, May 2020

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Subscription licensing gives you more control

- Ability to transfer licenses
- Ability to scale up and down
  - Unlike perpetual licenses – difficult to scale down

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But you need to know actual usage

"Come on Adobe... I get why you don't want us to know when expensive licenses aren't being used because we'll cancel them and you'll lose money... but really! In this day and age I thought transparency was the way to a customer's heart😉"

Adobe community message board (2022)
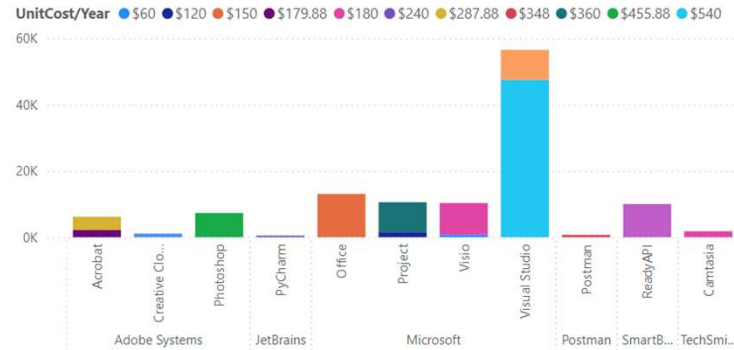
Like this Adobe Usage report

S I Status	Computer	User	Email	Product	Edition	Version	License Type	Last Used Date (By Computer)	Last Used Days Ago (By Computer)	Last Used Date (By User)	Last Used Days Ago (By User)	Install Date
S A I	desk_1004	11401	bdpym.fmpchj@...	Illustrator	None	CS6	cloud user	5/23/2021	500	5/23/2021	500	5/24/2017
S A I	desk_1146	11401	bdpym.fmpchj@...	Illustrator	None	2015	cloud user	10/10/2021	360	10/10/2021	360	3/30/2016
S A I	nb_985	23913	yewadx.vlkxlnh...	Acrobat	Pro DC T	2018	cloud user	10/13/2021	357	10/13/2021	357	4/12/2018
S A I	nb_985	23913	yewadx.vlkxlnh...	InDesign	None	CS6	cloud user	11/17/2021	322	11/17/2021	322	5/17/2018
S A I	nb_985	23913	yewadx.vlkxlnh...	Photoshop	None	CS6	cloud user	11/23/2021	316	11/23/2021	316	5/23/2018
S A I	desk_2290	142990	dhjwzo.qjjetq@...	Photoshop	None	CS3	cloud user	12/21/2021	288	12/21/2021	288	12/22/2019
S A I	nb_449	23248	wavagd.svbgwlv...	Captivate	None	11	cloud user	1/13/2022	265	1/13/2022	265	1/14/2020
S A I	nb_449	23248	wavagd.svbgwlv...	Creative Cloud All Apps Pro	Enterprise	2020	cloud user	2/26/2022	221	2/26/2022	221	2/13/2020
S A I	desk_387	25217	vaar.afhh@ucw...	Acrobat	Pro DC T	2020	cloud user	4/19/2022	169	4/19/2022	169	2/16/2020
S A I	desk_387	25217	vaar.afhh@ucw...	Creative Cloud All Apps Pro	Enterprise	2020	cloud user	4/27/2022	161	4/27/2022	161	2/16/2020

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Potential Software Cost Savings report
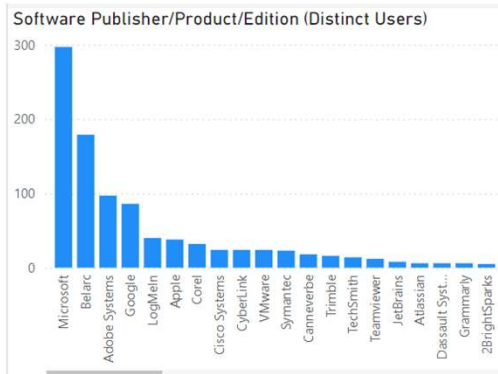
Software Publisher/Product/Edition (Distinct Users)

Software not used for X days
180   6916

License Required?
☐ no
■ yes

Clear Filters

Potential Cost Savings

UnitCost/Year ● $60 ● $120 ● $150 ● $179.88 ● $180 ● $240 ● $287.88 ● $348 ● $360 ● $455.88 ● $540 ▶

Potential Cost Savings

Company	Product	Edition	Users	UnitCost/Year	Potential Cost Savings
Microsoft	Visual Studio	z???	67	$540	36,180.00
Microsoft	Office	Standard	87	$150	13,050.00
SmartBear Software	ReadyAPI	None	2	$5,000	10,000.00
Microsoft	Project	Professional	22	$360	7,920.00
Adobe Systems	Photoshop	None	16	$455.88	7,294.08
Microsoft	Visual Studio	Enterprise	2	$3,000	6,000.00
Microsoft	Visio	Professional	33	$180	5,940.00
Microsoft	Visual Studio	Professional	11	$540	5,940.00
Microsoft	Visual Studio	z???	6	$540	3,240.00
		VisualStudio9.			
Total			**293**		

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How can usage be tracked today?

- Software publisher portals
- Microsoft Endpoint Configuration Manager & Vulnerability Manager
- Single Sign-On (SSO)
- Network traffic analysis
- Employee monitoring tools
- SAM tools
- No AI ☺)?

Software publisher portals

- Portals accessible by administrators
  - ▶ Purchase licenses
  - ▶ Assign licenses
- Examples
  - ▶ Adobe Admin Console
  - ▶ Microsoft 365 Apps admin center

Software publisher portals

- Pros
  - ▶ Great if usage data is available, detailed and actionable
- Cons
  - ▶ Usage data may not be provided or detailed enough
  - ▶ Not provided by many software vendors:
    - ▶ Adobe products
    - ▪ Microsoft Visio, Project, Visual Studio, Power BI
    - ▪ Oracle Virtual Box, Java
    - ▪ JetBrains
    - ▪ Atlassian
    - ▪ Etc.

Microsoft Endpoint Configuration Manager

- Tool used by operations to deploy software and patches
- User must create software metering rules
  - ▶ File Name, Original File Name, Version, Language
  - ▶ Identify specific .exe to target for usage.
- Wait 6, 9, 12 months for results
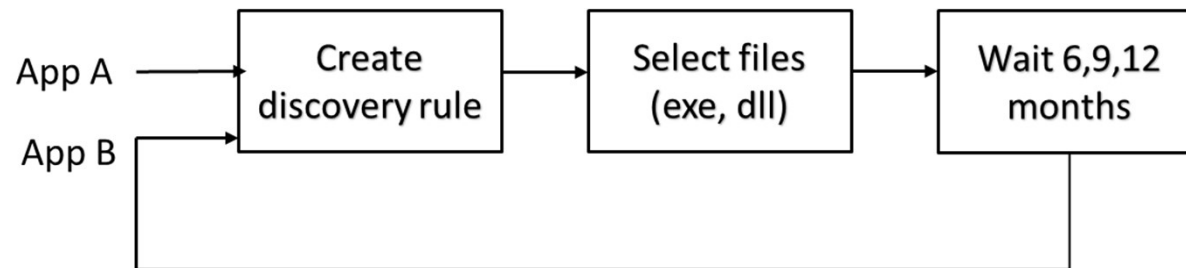- Limited number of applications can be monitored at the same time

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Microsoft Endpoint Configuration Manager

- Pros
  - Everyone has Microsoft Endpoint Manager Configuration Manager
- Cons
  - Requires set up of discovery rules
  - Must identify correct file to measure usage for each application
  - Must wait for 6, 9, 12 months for results
  - Limited number of files can be monitored at the same time
  - Rinse and repeat

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Microsoft Endpoint Configuration Manager – usage discovery process

App A → Create discovery rule → Select files (exe, dll) → Wait 6,9,12 months

App B → Create discovery rule

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Microsoft Defender Vulnerability Management

- Software usage on some applications
- Available on the Microsoft Defender portal

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Microsoft Defender Vulnerability Management

- Pro
  - Only requires Microsoft Defender and endpoint detection service
- Cons
  - Not sure which applications are monitored.
  - Only last 30 days of usage data.
  - Not sure how data can be accessed automatically.

Single Sign-On (SSO)

- Single authentication provides access to multiple applications
- Use SSO logs to determine application usage

Single Sign-On (SSO)

- Pros
  - Many organization are using SSO
- Cons
  - SSO Logins ≠ Software Usage
  - Accuracy & Completeness
  - Does not cover non-SSO apps
  - No indication of which app is being used if part of a package
    - M365, Adobe CC

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Network traffic analysis

- Firewalls with Cloud Access Security Broker (CASB) capabilities
- Used to allow or block applications
- Identifies SaaS applications by analyzing network traffic
  - Application signatures
  - Application protocols
  - Heuristics

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Network traffic analysis

- Pros
  - ▶ Many organizations are using advanced firewalls with this feature
- Cons
  - ▶ Accuracy and completeness
    - ▪ Problems in identifying applications based on network traffic
  - ▶ Manual effort
    - ▪ Viewing and analyzing log files.
    - ▪ Mapping signatures to applications.
  - ▶ Application Layer Encryption will prohibit use of this method.
  - ▶ Many subscription licenses not based on network access
    - ▪ Adobe, Microsoft, …

Employee monitoring tools

- Used to monitor employee behavior and activity

- Became very popular since Covid and WFH

- Based on active Agents and Web browser extensions

Employee monitoring tools

- Pros
  - Can gather software usage data based on signature catalog.

- Cons
  - Needs signature catalog to be updated.
  - Always on active agents on client machines.
  - Needs employee approval in the EU.
  - Possible employee pushback.

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SAM tool A – active agent based

- Identify executable files to monitor
  - ▸ "Key files" in an MSI package
  - ▸ Add/Remove programs registry settings
  - ▸ "Manual Mapper" to create registry entries to identify executables
- Enable or Disable usage tracking on assets
  - ▸ Via Registry entries
- Wait 6, 9, 12 months for results
  - ▸ Data aggregated by week, not by day
  - ▸ Executable may not identify software package use (Adobe, Microsoft)

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SAM tool A – active agent based

- Pros
  - ???

- Cons
  - A lot of continual manual efforts
  - Usage reported on wrong application
  - Per-user installed software not discovered
  - Suite applications not reported as used when components used
  - Usage not tracked for non-key MSI component files
  - Wait 6, 9, 12 months for results
  - Always on active agent.

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SAM tool B – browser extension

- Similar to other Employee Monitoring tools
  - ▶ Popular since Covid and WFH.
- Software application installed on popular web browsers
  - ▶ Chrome, Edge, Firefox
- Analyze browsing history for software usage

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SAM tool B – browser extension

- Pros
  - ▸ SaaS apps which use a web browser
- Cons
  - ▸ Many SaaS apps do not use a web browser
    - ▪ Adobe, Microsoft, …
  - ▸ Fairly easy to avoid or remove history
    - ▪ Incognito mode, Extensions that remove history
  - ▸ GDPR requires consent by users or browser history data must be anonymized
  - ▸ Possible push-back from employees

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SAM tool C – passive agent based

- Automated discovery of last used times of all apps
  - ‣ No set up required
- Results available immediately
  - ‣ No need to wait for 6, 9, 12 months for results
- Patent (US8473607B2) based on forensic techniques
- Currently applicable to Windows only

SAM tool C – passive agent based

- Pros
  - ▶ Automated - no manual set up steps required
  - ▶ Results available immediately – no need to wait for 6, 9, 12 months
  - ▶ Covers all apps which have a footprint on the host machine
    - ▪ Adobe, Microsoft (O 365, Visio, Project, Power BI), Oracle (Java, OVB), JetBrains, Salesforce, Zoom….
  - ▪ Passive agent – dormant most of the day.
- Cons
  - ▶ Does not cover apps which have no footprint
    - ▪ Avalara, Bloomberg, Capterra, Momentum, ServiceNow, Zoominfo, Zylo,…
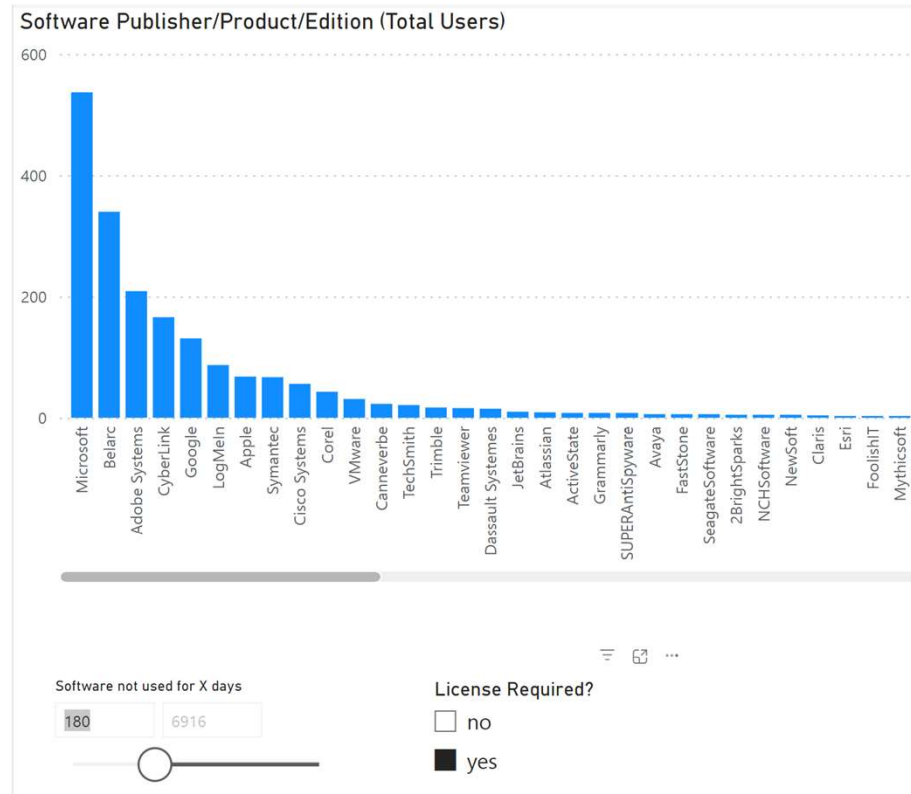 - ▶ Non-Windows environments

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SAM tool C example
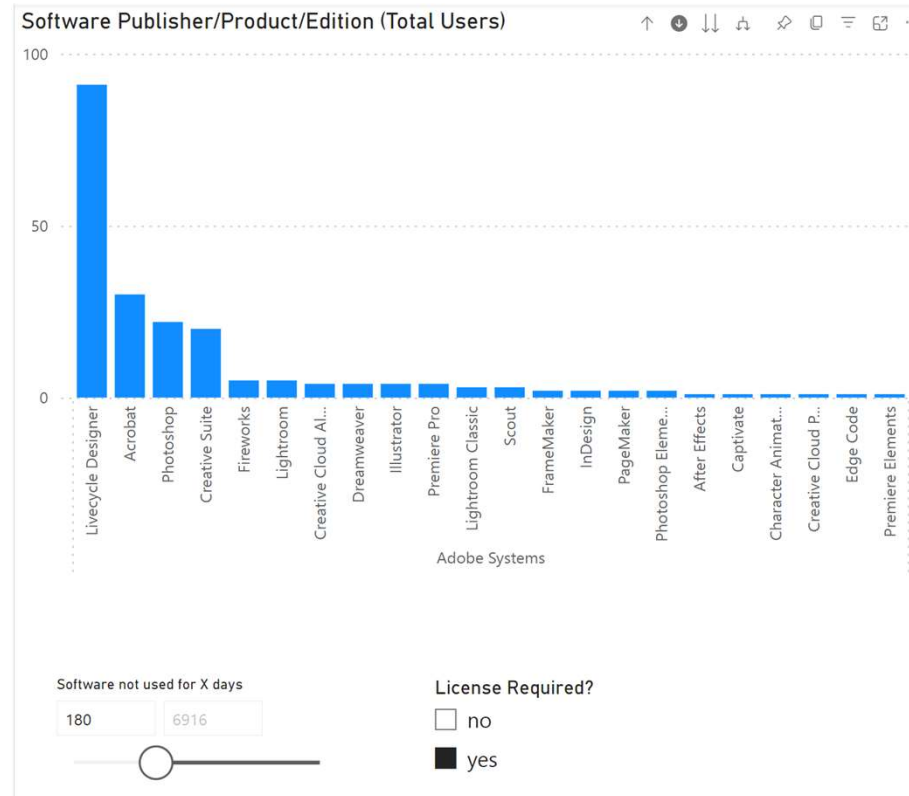
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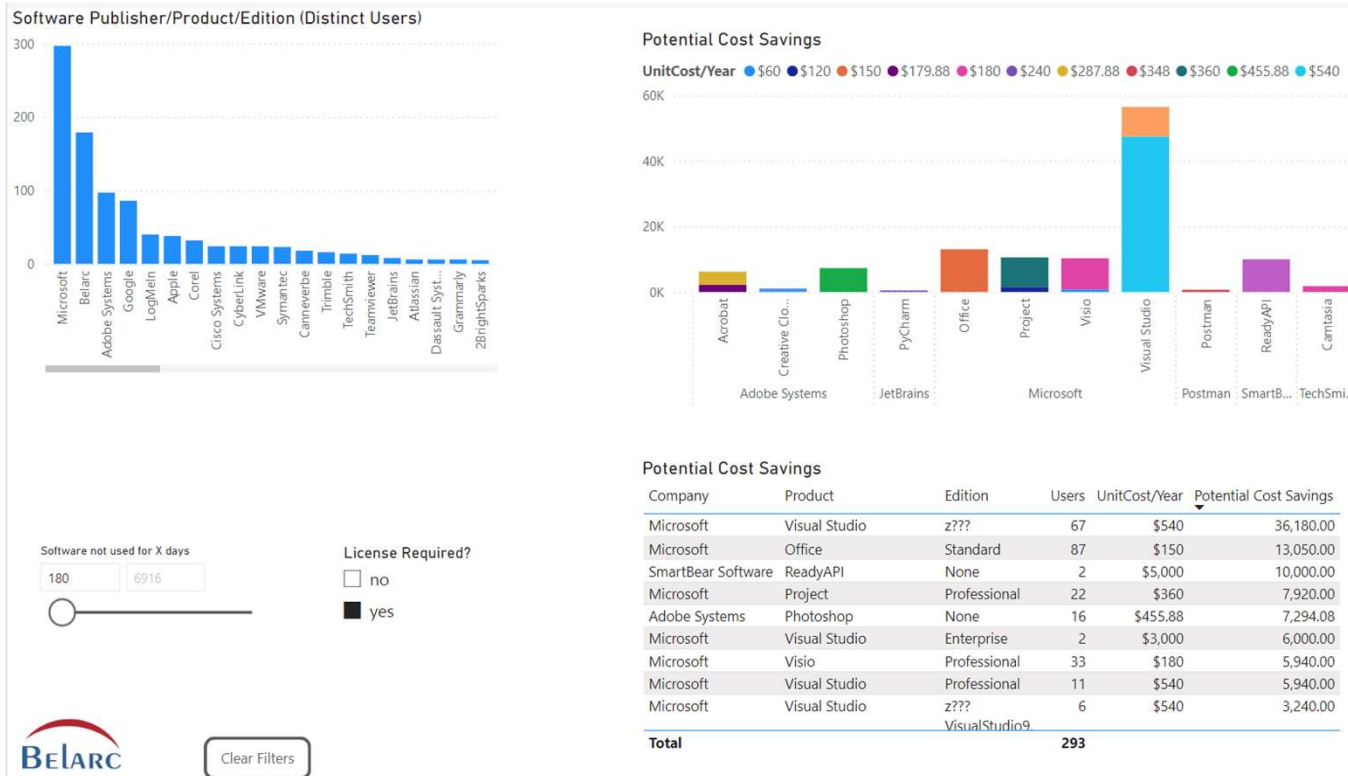
SAM tool C un-used software example

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SAM tool C un-used Adobe software

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SAM tool C un-used Adobe software

Software List

Company	Product	Edition	Version	License Model	License Required	Reason Not Req	Subscription Assigned	ProductKey	LoginUser	LastUsedTimeByUser	ComputerName	LastUsedTimeComp
Adobe Systems	Photoshop	None	CS2	user	yes		no	1131-1040-7383-9191-4899-0296	113867	4/29/2020 3:45:00 PM	desk_1880	12/19/2012 7:19:00
Adobe Systems	Photoshop	None	7	user	yes		no		1645	11/4/2019 6:27:00 AM	desk_2135	11/4/2019 6:27:00 A
Adobe Systems	Photoshop	None	2019	cloud user	yes		no		36763	8/7/2019 1:09:00 AM	nb_1534	8/7/2019 1:09:00 AN
Adobe Systems	Photoshop	None	7	user	yes		no	1045-1209-6738-4668-7696-2783	131694	10/5/2018 5:50:00 AM	desk_1914	10/5/2018 5:50:00 A
Adobe Systems	Photoshop	None	CS2	user	yes		no	1045-1412-5685-1654-6343-1431	92260	9/18/2018 10:30:00 AM	desk_51	9/18/2018 10:30:00
Adobe Systems	Photoshop	None	CS2	user	yes		no	1045-1412-5685-1654-6343-1431	41618	9/17/2018 2:48:00 PM	desk_2504	9/17/2018 2:48:00 P
Adobe Systems	Photoshop	None	CS2	user	yes		no	1045-1412-5685-1654-6343-1431	41618	9/17/2018 2:48:00 PM	desk_2511	3/2/2018 6:45:00 PM
Adobe Systems	Photoshop	None	2018	cloud user	yes		no		20532	3/16/2018 8:52:00 AM	nb_1326	3/16/2018 8:52:00 A
Adobe Systems	Photoshop	None	CS4	user	yes		no		126516	10/28/2017 2:22:00 PM	desk_2039	10/28/2017 2:22:00
Adobe Systems	Photoshop	None	2016	cloud user	yes		no		92264	8/16/2017 11:07:00 AM	nb_1387	8/16/2017 11:07:00
Adobe Systems	Photoshop	None	CS3	user	yes		no	1330-1503-9518-0182-8709-2496	505	4/24/2017 4:13:00 PM	desk_45	4/24/2017 4:13:00 P
Adobe Systems	Photoshop	None	CS2	user	yes		no	1045-0436-9551-0266-5984-9386	93458	4/6/2017 5:37:00 PM	desk_1472	4/6/2017 5:37:00 PM
Adobe Systems	Photoshop	None	2017	cloud user	yes		no		1856	2/10/2017 8:19:00 PM	nb_2492	2/10/2017 8:19:00 P
Adobe Systems	Photoshop	None	CS5	user	yes		no	1045-1470-5298-8331-7498-9528	134435	9/8/2016 3:51:00 PM	desk_1115	9/8/2016 3:51:00 PM

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Software usage data is critical to optimize costs

- Significant cost savings by optimizing SaaS software spend
- Usage is foundation for optimizing SaaS and other subscription license spend
- Needs to be automated, accurate, and up to date
- Single method may not meet all your requirements
  - ▸ Software publisher portals
  - ▸ Microsoft Endpoint Configuration Manager
  - ▸ Single Sign-On (SSO)
  - ▸ Network traffic
  - ▸ Employee monitoring tools
  - ▸ SAM tools

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- Over 1,800 customers worldwide
  - ▸ Autodesk, Environmental Protection Agency, Federal Aviation Administration, NASA, Patent & Trademark Office, Department of State, Travelers Insurance, US Air Force
  - ▸ Many long term >10 years
  - ▸ Located in over 50 countries
- Eight US and Worldwide Patents

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Questions and contact

Request our white paper – "Reduce your SaaS spend with accurate usage data".
Come by to chat with us on the show floor.

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