



Software Metering Report:

SofTrack versus SMS 2003

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1.0 Executive Summary

Integrity Software, Inc.'s SofTrack, a proven software metering and usage compliance auditing solution since 1988¹ including over 14,000 customers worldwide, provides a full complement of software license usage compliance auditing, complete software metering², application installation control, file access auditing, Internet Explorer usage auditing and related functionality. Previously known as Topaz, Microsoft's SMS 2003 was initially scheduled for release in the spring of 2002 and was finally released in the Fall of 2003, and provides software license usage compliance auditing with no additional functionality³.

1.1 What is Software Metering?

Software Metering is the ability to control computer software ("application") use in a networked environment. Control includes the ability to *actively deny use* of applications upon one of the following conditions:

- Additional use would violate the application's License Agreement⁴;
- Any usage is to be blocked, for instance, SETUP.EXE;
- Use is available only within defined time periods, for example, after 5pm;
- Detection of when use has become idle and optionally terminate use.

Software Metering also includes:

- Reporting of which users are actively using applications;
- Reporting of completed application use;
- Reporting summary of license use, how many were used at the same time (concurrently).

¹ http://www.softwaremetering.com/_evolution.htm

² Active Control of Application Use including Denial of Use, Idle Detection & Termination, Timekeeping

³ <http://support.microsoft.com/servicedesks/webcasts/en/wc061302/img010.jpg>

⁴ Each application your organization purchases includes an End User License Agreement or EULA which determines how each instance of the application or license purchased can be installed and used

1.2 What is Software License Usage Compliance Auditing?

Software License Usage Compliance Auditing is the ability to passively log computer software (“application”) use in a networked environment. No active control of software use occurs. Reporting of software use includes:

- Reporting of completed application use;
- Reporting summary of application use, how many were used at the same time (concurrently);

1.2.1 Workstation-based licenses

For applications that do not allow concurrent use⁵, Software License Usage Compliance Auditing is usually defined as the reporting of where the application is installed by workstation⁶ regardless of whether or not the application is ever actually utilized. Each workstation where the application is installed requires a license. The workstation is the unit of measure for each license. Thus, one workstation requires one license; installation upon 100 workstations requires 100 licenses. Auditing this type of Software License Usage Compliance requires an application inventory by workstation report. This type of report provides all the details required to determine if your organization is in compliance with the applications licensed in this manner. For complete Software License Usage Compliance you must protect against the *unauthorized* installation of the licensed application. SofTrack is the only product that defends against unauthorized application installation.

1.2.2 Concurrent use licenses

For applications governed by concurrent use licenses, specifically meaning how many workstations are allowed to simultaneously use the licensed application, you must monitor the application’s actual concurrent usage. This type of Software License Usage Compliance is accomplished through the continuous tracking of when the application is actively used in a networked environment regardless of where it is installed. Achieving Software License Usage Compliance Auditing of concurrent use licenses requires an activity report of how the application was used including where (by workstation), when and the duration of use. The resulting report will provide information regarding application usage that can be used to determine concurrent license usage compliance. Active software metering, such as that provided by SofTrack, ensures protection against overuse of a concurrent use application license by specifically blocking overuse.

1.2.3 Use on Thin Clients via a Terminal Server

When you install licensed applications upon a Terminal Server⁷ you must first determine if this is an acceptable use of the license you have purchased. Typically you would consult the application’s vendor and/or appropriate legal counsel. Due to the nature of the Terminal Server environment, specifically one computer hosting multiple remote thin

⁵ As specified by the applications’ End User License Agreement (EULA)

⁶ Including servers and laptops

⁷ Including Windows NTv4 Terminal Server Edition (TSE), Windows 2000, Windows 2003 including third party products such as Citrix® Metaframe

clients⁸, the *one workstation requires one license* statement of section 1.2.1 does not apply. It does not apply because the application can be installed exactly once on the Terminal Server yet offer simultaneous use of the licensed application to dozens or even hundreds of thin clients. Achieving Software License Usage Compliance Auditing in a Terminal Server configuration often requires an activity report that details how the application was used including where (by terminal server session), when and duration of use. The resulting report will provide information regarding application usage that can be used to determine license usage compliance. Active software metering, such as that provided by SofTrack, ensures protection against overuse of applications installed upon a Terminal Server by specifically blocking overuse.

2.0 Technical Summary: Understanding SofTrack

As defined by sections 1.1 and 1.2, SofTrack provides both software metering and software license usage compliance. SofTrack is the cumulative result of over 15 years experience. The design of SofTrack is that of simplicity. Its server and client⁹ modules require less performance overhead than most any other similar product. This low overhead requirement enables SofTrack to be used in any size environment, large or small. This operational sleekness is the result of years of refinement and use of assembly language in many of its components.

2.1 Additional features of SofTrack Software Metering

In addition to those items identified in section 1.1, SofTrack provides the following software metering functionality:

- Checkout licenses for offline use (specific tracking of offline use is not performed);
- Control application use by the user's group membership;
- Control use of applications suites;
- Detect and selectively termination use of idle¹⁰ applications;
- Restrict application use to a single instance per workstation;
- Require user to enter timekeeping codes prior to application use, frequently used by SofTrack customers for client billing or other auditing;
- Automatic recovery of licenses in-use by workstations that have terminated unexpectedly.

⁸ Thin Clients can be conventional workstations, "fat clients" or simply terminals with little more than a screen and keyboard

⁹ Workstation and Thin Client

¹⁰ An application is idle if it is not the current active window

2.2 Additional features of SofTrack Software License Usage Compliance

In addition to those items identified in section 1.2, SofTrack provides the following additional software usage compliance functionality:

- Eliminating unauthorized application installation, SofTrack can selectively *deny* creation of applications¹¹ which prevents unauthorized application installation;
- Denying use of executables not given a filename ending with .EXE or .COM¹²;
- Denying the renaming of executable files;
- Tracking of application installations including who performed the installation, file(s) installed, and the means whether by copying, installation via a tool such as Install Shield[®] or directly created by a compiler or *any other means*;
- Logging of all files attempted to be opened or created by the user¹³;
- Logging of all access attempts requested by Internet Explorer¹⁴ including local or intra-workstation accesses;
- Logging of all applications launched even those not specifically defined for metering or usage tracking;
- Reporting of what applications, files and Internet Explorer activities each user is actively using at their workstation; this information can then be used by your Helpdesk or Service Desk to know what any user was doing at time of requesting help;
- Discovering who is installing applications or simply creating executables, whether authorized or not.

3.0 Technical Summary: Understanding SMS 2003

As defined by sections 1.1 and 1.2, SMS 2003 *offers only* software license usage compliance. This means SMS 2003 does not offer software metering or the ability to control application use. Its predecessor, SMS 2.0, did offer software metering and the ability to control application use.

SMS 2003's current design¹⁵ is the result of approximately 7 years experience. That experience is in the form of SMS 1.0 and SMS 2.0. In terms of its software license usage compliance abilities, the design of SMS 2003 is 1/60th the code size of SMS 2.0¹⁶. SMS 2003's software license usage compliance ability is a complete rewrite of what was offered in SMS 2.0. The rewrite eliminated the ability to control software use.

¹¹ *.EXE files

¹² Prevents files with non-executable extensions from being used as executables

¹³ Files used directly by the Windows operating system without user intervention are not recorded

¹⁴ Only the Internet Explorer Browser is supported

¹⁵ First release is expected in September 2003

¹⁶ <http://support.microsoft.com/servicedesks/webcasts/en/wc061302/img012.jpg>

Migration from SMS 2.0 to SMS 2003 requires *manual* removal of SMS 2.0's software metering prior to installation of SMS 2003¹⁷. Also, when migrating from SMS 2.0 to SMS 2003, all previous rules and data are lost¹⁸. This means moving from SMS 2.0 to SMS 2003 requires as much effort as moving from SMS 2.0 to *any other similar product*.

Overall, product literature for SMS 2003 refers to it as including *software metering*. This assertion is not supported by the product's feature set as it does not support software metering that was defined in section 1.1. In terms of software use reporting, SMS 2003 offers only software usage logging and reporting with no control.

SMS 2003 does offer other abilities such as software distribution. Please note that SofTrack can peacefully co-exist with SMS 2.0 or SMS 2003.

3.1 Additional features of SMS 2003 Software License Usage Compliance

In addition to those items identified in section 1.2, SMS 2003 provides the following additional software usage compliance functionality:

- Logging of offline application usage by computers disconnected from your internal network, for instance, laptop users.

¹⁷ <http://support.microsoft.com/servicedesks/webcasts/en/wc061302/img011.jpg>

¹⁸ Ibid

4.0 Feature Comparison Chart, SofTrack vs. SMS 2003

Feature	SofTrack	SMS 2003
Application usage reporting for online users ¹⁹	Yes	Yes
Application usage tracking for offline users ²⁰	No	Yes
Ability to checkout licenses for offline use	Yes	No
Application Usage Summarization	Yes	Yes
Terminal Server support (thin clients)	Yes	Yes
Application usage tracking and control for MacOS9 and MacOSX workstations	Yes	No
Report applications and Microsoft service packs installed by workstation including workstation hardware	Yes	Yes
Application Denial (by application name)	Yes	No
Application Denial (by time of day)	Yes	No
Application Denial (by group membership)	Yes	No
Active License enforcement (metering)	Yes	No
Application Suite Metering	Yes	No
Queuing and Callback of users denied access	Yes	No
Administrator Alerts at predefined usage levels	Yes	No
View an application's currently active users	Yes	No
Idle Application Detection and Termination	Yes	No
Require billing or client code to be entered before each application use ²¹	Yes	No
Restrict application usage to a single instance per workstation	Yes	No
Selectively deny installation of applications ²²	Yes	No
Deny creation of EXE files	Yes	No
Deny renaming of EXE files	Yes	No
Report all executable files created by user and workstation	Yes	No
Log all files opened and created by user and workstation	Yes	No
Log all accesses via Internet Explorer by user and workstation	Yes	No
Block Internet Browsing via Internet Explorer ²³	Yes	No
Requires use of SQL Server	No	Yes
Can peacefully co-exist with SMS 2.0	Yes	No

¹⁹ Online users are those connected to your internal network

²⁰ Offline users are those disconnected from your internal network, for example, offsite laptop users

²¹ SofTrack labels this ability as its Timekeeping feature

²² Accomplished by selectively denying creation or modification of executable (*.exe) files

²³ Access to local internet files such as web-based online help is maintained

