

Sentinel HASP®

Sentinel HASP - v.5.10
Release Notes



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About Sentinel HASP

Sentinel HASP provides software publishers with strong anti-piracy and IP protection solutions, offering unmatched flexibility in assisting you to protect your revenue and increase sales. The Sentinel HASP system prevents unauthorized use of software, protects software copyrights and intellectual property, and offers multiple licensing models.

The strength, uniqueness, and flexibility of Sentinel HASP are based on two primary principles:

- *Protect Once—Deliver Many™* — the concept of separating the software engineering and business processes.
- *Cross-Locking™* — the technology that supports the *Protect Once—Deliver Many* concept, enabling a protected application to work with a HASP HL (hardware) or a HASP SL (software) key.

All commercial decisions, package creation and license definitions are executed by product or marketing managers after the protection has been implemented.

This workflow model provides you with greater flexibility and freedom when defining new sales and licensing models, including feature-based and component licensing, evaluation, rental, floating, subscription, provisional (trial/grace), pay-per-use, and more, enabling you to focus on revenue growth.

What's New in Sentinel HASP v.5.10?

This section describes the main features introduced in this release of Sentinel HASP.

Enhancements for Sentinel HASP Envelope

This section describes enhancements implemented in Sentinel HASP Envelope (general enhancements, and enhancements for Java, .NET and Windows x64 programs).

Sentinel HASP Envelope for Java Programs

- Protection of Java Enterprise Edition (J2EE WAR files) deployed to a Tomcat 6.x Web server is now supported.
- Protection can now be implemented at the method level instead of class level.
- Methods that implement Java Reflection API can now be protected.
- External class loaders are now supported.
- Java runtime version dependency has been removed. Every version starting from J2SE 5.0 is supported. **Note:** Specific Java version requirements may exist due to external considerations.
- Java Method Level Cache enables you to balance between run-time performance and security.
- Support is provided for all platforms that are supported by Sentinel HASP Java Run-time API.
- Symbol obfuscation and code obfuscation are supported at the method level.
- The Envelope GUI now provides better tools to handle Java archives.
- The Envelope GUI now contains the ability to handle error message IDs.
- The command-line Envelope can be configured to suppress warnings.

Sentinel HASP Envelope for .NET Programs

- Protection of programs developed using .NET Framework 4 is now supported.
- Envelope can now protect mixed mode .NET applications (only managed code is protected)
- .NET programs embedded inside PE32+ (64-bit) files can now be protected.
- Override methods, virtual methods, and methods with the property SpecialName can no longer be obfuscated. By default, public methods are not obfuscated (although they can be forced to be obfuscated). These restrictions prevent problems that would occur if these methods were obfuscated and then overridden by an external DLL.
- The DataHASP mechanism for automatically encrypting/decrypting files is now supported. (Note: This requires enabling Win32 or Windows x64 shell protection.)

Sentinel HASP Envelope for Windows x64 Programs

- The DataHASP mechanism for automatic encryption/decryption of files is now supported.

Sentinel HASP Envelope for Mac

- Envelope can now be used to protect bundles.

Sentinel HASP Envelope – General Enhancements

- Paths within a Sentinel HASP Envelope project are now stored as relative paths. As a result, you can now move a project together with its unprotected binary to a different location (for example, for inclusion in a build environment). Note that you must copy or move the directory structure that contains both the project file and the related unprotected binary to the new location. The relative path between the project file and the unprotected binary must not be changed.
- Several reported problems in Envelope have been resolved.

Enhancements for Sentinel HASP Vendor Suite

- The entire Sentinel HASP Vendor Suite, including Sentinel HASP Business Studio, can now be installed and used under Windows x64 operating systems.

Support for Additional Platforms

- Support for the following Linux operating systems was added to Sentinel HASP:

Operating System	Run-Time Environment	Vendor Tools
SUSE Linux Enterprise Server 11 (x86 and x86_64)	✓	✓
OpenSUSE 11.2 (x86 and x86_64)	✓	✓
RedHat EL 5.4 (x86 and x86_64)	✓	✓
Ubuntu Desktop 10.04 (x86 and x86_64)	✓	✓
Ubuntu Server 10.04 (x86 and x86_64)	✓	✓
Debian 5.04 (x86 and x86_64)	✓	✓

- For complete information on supported platforms, go to the following URL:

<http://www3.safenet-inc.com/hasp/srm-platform-support.aspx>

Enhancements for Sentinel HASP Admin Control Center

- Users now have more control over the way Admin Control Center handles the Access log and Error log files. These files can now be restarted, compressed, and deleted automatically.

Enhancements for Sentinel HASP Business Studio Server API

- Sentinel HASP Business Studio API can now be installed under Windows x64 operating systems.
- The API now supports the **HaspBss.Order.NeedConfirmation** Boolean property. This property enables the **Order** class to specify whether the end user should be automatically prompted to return a C2V file to the vendor.

Added Support for Applications Under Wine

- Sentinel HASP Run-time Environment now supports applications that are installed under Wine version 1.0 or 1.0.1 under Linux operating systems.

Enhancements for Sentinel HASP Run-Time Environment

- Sentinel HASP Run-time Environment has been certified by Microsoft as “Compatible with Windows 7” (32-bit and 64-bit). To view the certification on the Microsoft web site, click [here](#).
- Installation of Sentinel HASP Run-Time Environment now proceeds more quickly.
- The Sentinel HASP Run-time Environment for Linux now supports ExpressCard.
- SL keys are now supported on the Intel Mac 64-bit platform.
- The Sentinel HASP License Manager service is now digitally signed by SafeNet. As a result, occurrences where the service is flagged as a virus by the end user’s virus checker application will be reduced.

Enhancements for Sentinel HASP Run-Time API

- Sentinel HASP Run-time API now enables you to install licenses on a remote computer.

Enhancements for Sentinel HASP ToolBox

- Sentinel HASP ToolBox now supports the Java Run-time API. In the Settings dialog box, you can select Java as the programming language in order to generate Java programming code.
- The design and color scheme of Sentinel HASP ToolBox is now consistent with other Vendor Tools interfaces.

Additional Enhancements

- The Activation API now uses a SOAP interface and supports communication through a proxy.
- The Windows MasterHASP wizard now supports communication through a proxy. (Proxy values can be defined in the Settings dialog box in Sentinel HASP Envelope or Sentinel HASP ToolBox.)
- The Run-time COM API and AutoCAD sample now provide 64-bit support.
- The *Sentinel HASP Installation Guide* now describes how to install the Sentinel HASP Run-time Environment in a Windows Embedded Standard 7 or Windows PE image.
- The 4D Run-time API sample has been improved.

What's Changed in Sentinel HASP v.5.10?

Documentation for Signing the Run-time Environment Installer

Digital signatures allow administrators and end users who are installing the Run-time Environment (RTE) to know that the software is provided by a legitimate publisher. In addition, certain Windows operating systems enforce the use of digital signatures for some types of code. In these cases, installing unsigned software requires a higher authorization level.

SafeNet highly recommends that when you generate a custom RTE installer in Sentinel HASP Business Studio, you apply your digital signature to the RTE installer. This simplifies installation of the RTE by the end users and prevents false positive detection of the RTE installer by anti-virus applications.

The procedure to apply your digital signature to the RTE installer is now provided in the online help for Sentinel HASP Business Studio. For more information, see the topic "Generating the RTE Installer" in the online help system.

Continuation of Rebranding From "HASP SRM" to "Sentinel HASP"

In this release of Sentinel HASP, SafeNet continues the rebranding process that was started in Sentinel HASP v.5.0. Most "HASP SRM" pathnames and menu options have been renamed to "Sentinel HASP." Most "Aladdin" pathnames and menu options have been renamed to "SafeNet." The table below provides details of the high-level changes that are implemented in this release.

Start Menu

Version 5.0	Version 5.10
Start > All Programs > Aladdin > HASP SRM	Start > All Programs > SafeNet > Sentinel HASP

Path Names

Version 5.0	Version 5.10
\Program Files\ Aladdin \HASP SRM	\Program Files\ SafeNet \Sentinel HASP
\Program Files\ Aladdin \HASP SRM Server	\Program Files\ SafeNet \Sentinel HASP Server
\Program Files\Common Files\ Aladdin Shared\	Not changed
\Documents and Settings\ <user>\My Documents\Aladdin\HASP SRM 5.0</user>	\Documents and Settings\ <user>\My Documents\Aladdin\Sentinel HASP 5.10</user>
\Users\ <user>\Documents\Aladdin\HASP SRM 5.0</user>	\Users\ <user>\Documents\Aladdin\Sentinel HASP 5.10</user>
For Mac: ~/Aladdin/HASP SRM 5.0/	Not changed

Additional changes from "Aladdin" and "HASP SRM" to "SafeNet" and "Sentinel HASP" can be found at lower-level directories under the above pathnames.

Changes to Sentinel HASP HL Key Firmware

Starting from Sentinel HASP 5.0, the HASP HL Key Firmware has been modified to support future planned security enhancements in Sentinel HASP. Sentinel HASP automatically updates the Firmware on HASP HL keys to the latest version (v.3.25). This occurs:

- when a HASP HL key with v.3.21 Firmware is present on a computer where the Run-Time Environment is being updated to v.5.0 or later.
- when a customer connects a HASP HL key with v.3.21 Firmware to a computer where v.5.0 or later of the Run-time Environment has been previously installed.

For HL key with Firmware earlier than 3.21, the customer can apply the Firmware Update V2C or EXE file provided on the Sentinel HASP Installation DVD to update the Firmware to v.3.25.

Upgrading from HASP SRM v.4.0 or earlier to Sentinel HASP v.5.10

Customers who currently work with HASP SRM v.4.0 or earlier should note the changes described in this section when upgrading to Sentinel HASP v.5.10.

Warning: Some of these issues may cause you to lose important functionality in Sentinel HASP if you do not deal with them before you upgrade to Sentinel HASP v.5.10.

- Before v.5.0, vendors who protect their software using only HASP HL Keys and do not have an Activation license for working with HASP SL Keys were nevertheless able to generate Provisional Products so that they could distribute “trialware” version of their software. For v.5.0 and later, such vendors must now purchase a license to define Provisional Products.
- After installing v.5.10, vendors must reintroduce their Master keys.
- After installing v.5.10, vendors who are working in languages other than English require new Language Packs. The release plan for the Language Packs for v.5.10 will be announced shortly.
- A new Reports facility has been added to Business Studio v.5.0 and later. To work with this facility, vendors must purchase a separate license. Business Studio users who will work with this facility must be assigned a new Role – Reporting.
- Vendors who are currently working with HASP SRM v.2.x or v.3.x should be aware of significant changes in the product, in addition to the changes listed above. For more information, see the document *Transitioning From HASP SRM v.2.x*, described below under “Documents.”

Sentinel HASP Documentation

The documents and online help systems described below are provided in this release of Sentinel HASP.

Documents

Sentinel HASP documents (PDF files) can be found:

- on the Sentinel HASP Installation DVD, under: **\Windows\Installed\Docs**
- where Sentinel HASP is installed, under: **...\Program Files\SafeNet\Sentinel HASP\Docs**

Document	Description
Sentinel HASP v.5.10 Installation Guide	Details the prerequisites and procedures for installing Sentinel HASP and the Sentinel HASP Business Studio Server.
Sentinel HASP v.5.10 Software Protection and Licensing Guide	Provides in-depth information about the logic of the applications and best practices for maximizing your software protection and licensing strategies. Describes a wide range of licensing strategies and models that you can implement, and can serve as the basis for elaboration and for creating new, tailor-made licensing models.

Document	Description
Sentinel HASP Software Protection and Licensing Tutorials	Guide you through the basic procedures of Sentinel HASP to familiarize you with the applications and their functionality. <ul style="list-style-type: none"> The Developer Kit tutorial is for vendors who wish to evaluate Sentinel HASP. The Starter Kit tutorial is for vendors who have just purchased Sentinel HASP.
HASP SL v.5.10 Product Activation Tutorial	Guides you through the basic procedures of protecting a Windows application, creating a trial license, and then converting the license to a permanent license that is protected with a HASP SL key.
Quick Start Guides	Provides a short and simple demonstration of how you can easily protect your software using Sentinel HASP HL keys. Separate Developer Kit and Starter Kit guides are provided.
Gaining a Competitive Edge with Sentinel HASP Licensing	Discontinued. This has been incorporated into the <i>Sentinel HASP v.5.10 Software Protection and Licensing Guide</i> .
Integrating Sentinel HASP Business Studio Server into Your Existing Back-Office Systems	Outlines the many ways that software vendors can maximize the potential of their existing back-office systems, such as ERP, CRM, and business intelligence systems, through seamless integration with Sentinel HASP Business Studio Server
HASP HL Drive Flash Partitioning Utility v.1.0 – User Guide	Describes how to use the HASP HL Drive partitioning utility to load your HASP-protected applications and data onto the CD-ROM partition of a HASP HL Drive, and ship it to your customers. Your customer can save files to HASP HL Drive, or load additional software on it, thus utilizing the convenience of USB flash drive functionality.
Transitioning From HASP SRM v.2.x	Describes how to upgrade from HASP SRM v.2.x to Sentinel HASP v.5
Migration Guides	Describe how to migrate to Sentinel HASP from: <ul style="list-style-type: none"> - Hardlock - SmartKey - Sentinel SuperPro - HASP HL - HASP4 - Sentinel Hardware Keys
Data Sheets	Provide technical information on specific components of the Sentinel HASP system.

Online Help Systems – User Interfaces

The documentation described in the table that follows can be accessed from the user interface for the relevant Sentinel HASP component.

Online Help System	Description
Sentinel HASP Admin Control Center	Documentation for the end user, describing the Admin Control Center and providing instructions for performing the various functions such as updating or attaching licenses.

Online Help System	Description
Sentinel HASP Business Studio	Provides the Sentinel HASP user with detailed directions on how to handle setting up license entities and how to handle orders, production, and support for HASP HL and SL keys.
DataHASP Utility	Provides the developer with a description of the DataHASP utility, used for protecting data files that are accessed by Sentinel HASP Envelope.
Sentinel HASP Envelope (Separate versions for Windows and for Mac)	Describes how to employ Sentinel HASP Envelope to automatically wrap your programs with a protective shield. The application provides advanced protection features to enhance the overall level of security of your software.
Sentinel HASP ToolBox	Provides the developer with an easy-to-use interface for the Sentinel HASP Run-time API. Using Sentinel HASP ToolBox, the developer can evaluate the individual functions that make up the Sentinel HASP Run-time API, and their parameter requirements.

Online Help Systems – Sentinel HASP APIs

Documentation (CHM files) for the Sentinel HASP APIs described below can be found:

- on the Sentinel HASP Installation DVD, under: **\Windows\Installed\API**
- where Sentinel HASP is installed, under: **...\Program Files\SafeNet\Sentinel HASP\API**

Sentinel HASP API	Description
Activation API Reference	Together with various Sentinel HASP Run-time Environment API functions, this API assists the developer in communicating with the Sentinel HASP Business Studio Server.
Run-time API Reference	Provides the developer with an interface to use the functionality available in the Sentinel HASP Run-time Environment.
Run-time COM API	Provides the developer with access to Sentinel HASP Run-time Environment functionality, through an interface written for the Microsoft Component Object Model (COM).
Run-time Installer API	Provides the developer with an interface for integrating installation of the Run-time Environment into the installation of the vendor's protected application.
Business Studio Server API	Provides the developer with an interface for integrating Business Studio functionality into the vendor's existing back-office systems.

Software and Documentation Updates

SafeNet recommends that you frequently visit the [Sentinel HASP downloads page](#) to ensure that you have the most recent versions of Sentinel HASP software and documentation, and for documentation in other languages.

Supported Platforms

To ensure that you have the most comprehensive and up-to-date list of supported platforms, go to: www3.safenet-inc.com/SRMplatformSpt

General Information

Sentinel HASP Vendor Keys

When you purchase Sentinel HASP, you are provided with two Sentinel HASP Vendor keys—the Sentinel HASP Master key and the Sentinel HASP Developer key.

The Sentinel HASP Developer key is used by your software engineers in conjunction with the Sentinel HASP protection tools to protect your software and data files.

The Sentinel HASP Master key is used in conjunction with Sentinel HASP Business Studio and is attached to the Business Studio Server. The key is used by your production staff to create licenses and lock them to Sentinel HASP protection keys, to write specific data to the memory of a Sentinel HASP protection key, and to update licenses already deployed in the field.

Every Business Studio Server computer must have a Sentinel HASP Master key connected. If you have installed the Activation components on a separate server from that on which the Management components are installed, you must ensure that each instance of the Activation server has a Sentinel HASP Master key connected that contains your SafeNet licenses.

Sentinel HASP Installation

- You cannot combine different versions of Sentinel HASP Business Studio and Sentinel HASP Business Studio Server on the same computer.
- It is recommended that when you specify a server name, you use the machine name and not the IP address—unless the IP address of the server is fixed.
- When Sentinel HASP is being installed on a terminal server, an “After Installation” message may be displayed, prompting you to click **Next** after installation. This message can be ignored. Click **Cancel** in the message to close the dialog box.

Known Issues

The known issues from Sentinel HASP v.5.10 that are likely to have the most significant impact on users are listed below, according to component.

Sentinel HASP Installation

Ref	Issue
9318	If you are installing an updated version of Sentinel HASP Business Studio Server (not the entire Sentinel HASP Vendor Suite), and the installer detects an earlier version of HASP SRM Vendor Suite on your computer, all components of the earlier (full) version will be uninstalled.
12870	During installation of the Sentinel HASP Business Studio Server, if you select Custom Installation , and then specify that either the Management or Activation option is not to be installed on this computer, you may have to wait a short time before the selection is implemented.
14528	On a Windows 7 platform, Sentinel HASP cannot be installed under Windows XP mode.
100477	<p>When you install Sentinel HASP 5.10 and choose to use an existing SQL Server, the installation wizard does not enable you to browse for an existing SQL Server instance.</p> <p>Workaround: During the installation procedure:</p> <ol style="list-style-type: none">1. In the screen "Select the SQL server and the security credentials," in the SQL Server Name field, enter only the host name (full computer name) of the computer where SQL Server is installed. You can enter "(local)" if you are installing Sentinel HASP on the same computer as the SQL Server.2. In the SQL User Name and SQL Password fields, enter the SQL user name (default: sa) and password that you specified when installing SQL Server. Click Next.3. In the screen "Specify a name for your Business Studio Database," select Create a new database. Click Next.

Sentinel HASP Run-time Installer

Ref	Issue
8475	<p>When you attempt to integrate the Sentinel HASP Run-time Installer MSM module in your Windows Vista installation package, a warning may be displayed. This is a known issue for the Installer, and the message can be ignored. For more information about this issue, go to the following URL:</p> <p>http://kb.flexerasoftware.com/selfservice/microsites/search.do?cmd=displayKC&docType=kc&externalId=Q107955&sliceId=1&docTypeID=DT_ERRDOC_1_1&dialogID=95513399&stateId=0%200%2095503947</p>

Sentinel HASP Business Studio

Ref	Issue
13652	When you attempt to rotate the pie chart in a Business Studio report, the application sometimes fails, displaying an access violation error. This is caused by outdated video card drivers. To resolve this problem, download the current drivers for your video card.
14650	Report Chart Module does not support Unicode. Non-Latin characters are displayed unintelligibly. Be sure to follow the instructions in the <i>Sentinel HASP Installation Guide</i> for installing a TrueType font that contains the required characters.

87012	<p>Installation of Sentinel HASP components (Business Studio Server and Vendor Suite) requires temporary free disk space, in addition to the space occupied on disk by actual software. If the required free space is not available, the installation process may enter an endless loop.</p> <p>Workaround: SafeNet recommends that you ensure that the computer where you install Sentinel HASP has at least double the amount of free space required by the components to be installed. For example: A full installation of Sentinel HASP requires 1.8 GB of disk space. Ensure that at least 3.6 GB of free disk space is available before starting the installation process. The additional space used by the installation process is released at the end of the process.</p>
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Sentinel HASP Business Studio Server API

Ref	Issue
CASE 736	<p>The Sentinel HASP database has been optimized with the addition of SQL indexes in order to improve performance of queries performed using Business Studio Server API. However, the optimized performance is not applied for sites that upgrade from v.5.0 to v.5.10. Customers who upgrade from 5.0 and who require this enhancement should contact Technical Support.</p>

Sentinel HASP Run-time Environment

Ref	Issue
12506	<p>Sentinel HASP communicates via TCP and UDP on port 1947. This port is IANA-registered exclusively for this purpose. At the end user site, the firewall must be configured so that communication via this port is not blocked.</p>
13951	<p>Sentinel HASP automatically updates the Firmware on HASP HL keys to the latest version (v.3.25). For more information, see “Changes to Sentinel HASP HL Key Firmware” on page 6.</p> <p>However, when the Run-time Environment is installed on a virtual machine, the Firmware update is not installed automatically. In addition, the Firmware Update V2C/EXE files provided will not reliably update the Firmware:</p> <ul style="list-style-type: none"> • if the VM is located on a Windows computer. • if the VM is located on a Mac computer using any virtual machine software <i>other than</i> VMware Fusion 2 or 3. <p>If the V2C file is used on one of VMs listed above, the update will fail. The visible symptoms of this problem are:</p> <ul style="list-style-type: none"> • The HL key blinks continually. • In the Admin Control Center, HASP Keys page, the HASP HL key is listed with the value 0.0 in the Version column. • The protected software will not detect the presence of the HL key. <p>Workaround: Connect the HASP HL key to a computer where the Run-time Environment is installed under the native operating system as described in “Changes to Sentinel HASP HL Key Firmware” on page 6. After the Firmware on the HL key has been updated to version 3.25, return the HL key to the original computer where the virtual machine is located.</p>
14827	<p>Given the following situation:</p> <ul style="list-style-type: none"> • A Product is protected by a HASP SL protection key and allows concurrency. • The number of concurrent users is the maximum allowed. <p>Additional users attempting to access the protected software receive the message “Access denied” instead of the message “Too many users.”</p>

Ref	Issue
99350	<p>On the Mac OS 10.6 Server with 64-bit kernel extension: The Run-time C samples (static, shared, Xcode static and shared) sometimes stop responding after displaying the copyright notice.</p> <p>Workaround: Install the latest operating systems updates (10.6.4 or later) from Apple.</p> <p>Note: If the precompiled Run-time sample binaries do not function properly (they do not respond when executed), recompile the binaries with Xcode or GCC.</p>

Sentinel HASP Envelope for Windows Platforms

General

Ref	Issue
92503	<p>If you move an Envelope project file from its original location to a different location, then the next time you open the project, Envelope displays an incorrect path for the output (protected) file.</p> <p>You can use either of these workarounds to move an Envelope project file to a new location:</p> <ul style="list-style-type: none"> • Use the Save As option from the Envelope File menu to save the project to the new location. (You can afterwards delete the original project file.) • Copy the directory structure containing both the project file and the related unprotected binary to the new location.
93877	<p>(For Windows Vista and Windows 7) In the event that the error “Serious internal engine error (65535)” is displayed, make sure that you have write permission for the specified output directories and that the output directory is not protected by Windows UAC.</p>

Java

Ref	Issue
11043	<p>To protect JAR files using Sentinel HASP Envelope on Windows 2008 Server 64-bit computers, you must have the Win32 Java Run-time Environment (JRE) installed, even if you already have the Windows x64 JRE installed. Alternatively, ensure that the path to the Windows x64 JRE is included in the system path variables.</p>
91963 (CASE 20)	<p>When a (vendor) developer attempts to create a shared object file that links to the Sentinel HASP shared object file libhasp_linux_batchCode.so, error messages similar to the following are displayed:</p> <pre> user@host:~/Desktop/API/Runtime/Java/source> ./build_linux_x64.sh Building HASP Java native library /usr/lib64/gcc/x86_64-suse-linux/4.3/../../../../x86_64-suse-linux/bin/ld: HASPJava.o: relocation R_X86_64_32 against `a local symbol' can not be used when making a shared object; recompile with -fPIC HASPJava.o: could not read symbols: Bad value collect2: ld returned 1 exit status </pre> <p>This problem occurs because the Sentinel HASP Run-time API was not compiled to allow position-independent code generation (using the -fPIC flag).</p> <p>Workaround: You can obtain a version of the Sentinel HASP Run-time API that was compiled with the -fPIC flag. For more information, contact Technical Support.</p>

Ref	Issue
93464	<p>Sentinel HASP Envelope v.5.10 provides extensive enhancements for protection of Java programs. As a result, projects for Java programs that were created before the release of this version of Envelope must be updated using the Sentinel HASP Envelope GUI. (Make sure that you update existing Envelope projects as described below before you attempt to use the Envelope v.5.10 command-line utility with these projects.)</p> <p>To update an existing Envelope project to v.5.10:</p> <ol style="list-style-type: none"> 1. Open the project in the Sentinel HASP Envelope v.5.10 GUI and click the application in the Project pane. Envelope fills in the class/method list. By default, some methods are preselected. This is equivalent to the results expected when adding a new project. 2. Review the selection of methods that were selected by default for protection. For more information, see “Optimizing Protection Settings for Performance and Security” in the Sentinel HASP Envelope online help. 3. Save the project.
94373	<p>One of the optional behaviors in Envelope for protecting JEE applications is to halt the thread if the protected JEE application fails to detect a Sentinel HASP protection key. This behavior is controlled by the advanced protection property <code>SUSPEND_THREADS</code>. However, the protection mechanism also halts all threads from all third-party application running in the same Java Virtual Machine instance (JVM) on the Tomcat server. (Note that each Tomcat server only starts a single JVM instance.) Therefore, when protecting JEE applications in Envelope, the default value for the <code>SUSPEND_THREADS</code> property is currently set to False (although the documentation states that it is set to True). If you attempt to set the value for this property to True, a warning message is displayed.</p>
95269	<p>The current release of Sentinel HASP Envelope does not support protection of Java paint methods, but it allows you to select them in the user interface. As a result, the protected program may cause a deadlock when it executes a protected paint method at runtime with no HASP key connected. To prevent this issue from occurring, you can deselect all paint methods. Note that paint methods do not usually contain application logic; therefore, deselecting them typically has no impact on security. As an alternative, you can select console output for messages by enabling <code>stderr</code> output instead of windows in the Advanced settings panel.</p>
95491	<p>The current release of Sentinel HASP Envelope does not support protecting instance methods that call instance methods of the super class. Note that such methods are not detected by the Envelope and may be selected for protection by default. As a result, the protected application may trigger an <i>IllegalAccessError</i> exception during runtime.</p> <p>To prevent such exceptions, you can disable the protection of methods that contain calls to super class methods. Note that this reduces the level of protection.</p> <p>As an alternative, you can create a new class with a method that contains only the code leading up to (but not including) the call to the super instance method. You can protect this method instead of protecting the original method that contains the super instance method call.</p>
99869	<p>A protected JAR/WAR archive that contains Unicode characters in its path or name will not operate under the native operating system. Although there is small chance that the archive will run (depending on the type of Unicode characters that are used), in most cases the application will not run and will display an error message. (This problem does not occur on systems that use MUI for localization.)</p> <p>Workaround: Install the Tomcat server in a path whose name contains only ASCII characters. Ensure that the name of the WAR archive contains only ASCII characters.</p>

Ref	Issue
100213	The number of instances of a protected application that can run in a network environment may exceed the number of concurrent instances allowed by the license terms. Workaround: In the protected application, call a Run-time API function to open a permanent session to the Feature for which concurrency is restricted.
None	If protected JEE applications from multiple vendors are deployed on a single Tomcat server, the applications will not operate.

.NET

Ref	Issue
14699	A problem exists in the way protected .NET applications consume concurrency (seats). A protected application for which Periodic background checks is enabled in Sentinel HASP Envelope consumes one seat as long as the application is active. (By default, Periodic background checks is enabled.) If the application also uses a protected method, the protected method also consumes a license for a very short time when it is called. As a result, if a maximum concurrency is specified, the number of instances of the protected application that can run concurrently is one less than the maximum concurrency. For example, if the maximum concurrency is five, only four instances of the application are able to run concurrency. Workaround: In Business Studio, add one to maximum concurrency allowed for protected .NET applications.
89873	If a base class is selected to be obfuscated and a derived class is not set to be obfuscated, the derived class will not find the base class. Therefore, if you select a base class for obfuscation, you must also select any derived class for obfuscation.

Sentinel HASP Envelope for Mac OS X

Ref	Issue
10905	Error codes in Sentinel HASP Envelope for Mac OS have been reassigned in v.5.0. Developers who are using automated error recognition routines must update these routines for the new error codes.
10929	You cannot run protected PPC binaries on Intel Mac 64-bit OSX and OSX 10.4.11 (Tiger).
11416	In certain instances, a protected Mach-O binary may have a different owner and permissions than it had prior to protection with Sentinel HASP Envelope. This is caused because Sentinel HASP Envelope designates the current user (that is, the user applying the protection) as the owner of the newly-created files.

Sentinel HASP MasterHASP Utility

Ref	Issue
11432	When you run MasterHASP v.3.60 for Linux or MasterHASP v.5.0 for Mac operating systems, you must copy the generated APIs from .../Aladdin/HASP SRM [version]/API/Runtime/C to .../Aladdin/HASP SRM [version]/API/Runtime/Java

Contact Details

For assistance, or to report problems, contact your local [SafeNet representative](#), or create a support call at <http://www.safenet-inc.com/technicalsupport.aspx>.