

Customizing Sentinel License Monitor - ReadMe

This readme contains information on how to customize the Sentinel™ License Monitor.

Who Should Read This Document?

This document is for developers who wish to modify the *look-and-feel* of the Sentinel License Monitor. However, please note that the cancel license interface cannot be modified (based on CancellInfoApplet).

Basic Requirements

To customize the Sentinel License Monitor you will need the following:

- Java™ SE Development Kit 6 (or higher)
- Working knowledge of Java applets.

Available Files

The following files are available in the `\Sentinel License Monitor\Source` directory:

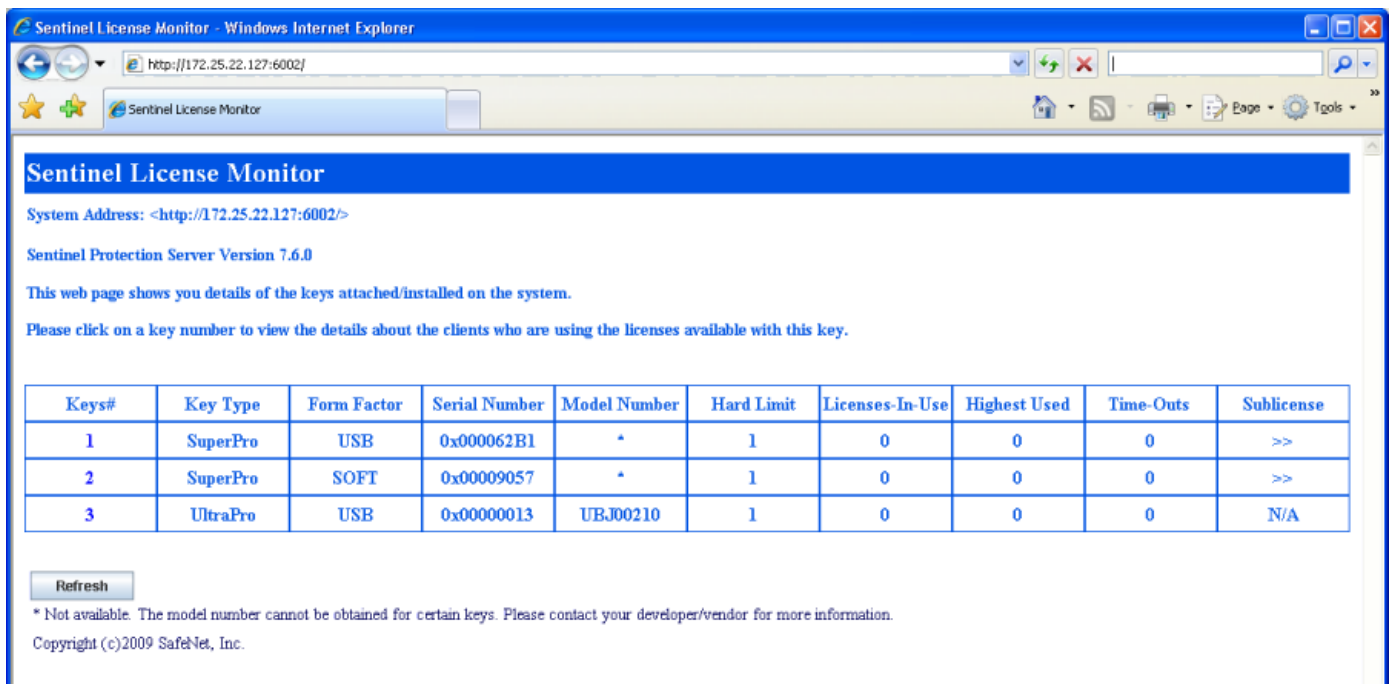
File Name	Description
<i>keyinfo.html</i>	An HTML file to display the key information.
<i>licenseinfo.html</i>	An HTML file to display the license information.
<i>AppletResources.java</i>	The resource file.
<i>AppletResources_en.java</i>	The resource file (for English locale).
<i>KeyInfoApplet.java</i>	The source of the Java applet used for displaying the key details.
<i>LicenseInfoApplet.java</i>	The source of the Java applet used for displaying the license details.
<i>XMLParser.java</i>	The parser for the XML file.
<i>build.sh</i>	The batch file to build and show output.
<i>CMd5Chap.java</i>	The source for constructing CHAP packets.
<i>CMessage.java</i>	The source file for constructing or splitting the message.
<i>CPasswordDlg.java</i>	The source file for the Password dialog.

File Name	Description
<i>CancelInfoApplet.java</i>	The source file for displaying the license details or cancelling a license (using <i>licenseinfo.xml</i>).
<i>cancelinfo.html</i>	An HTML file for displaying the license details or cancelling a license.
<i>sublicenseinfo.html</i>	An HTML file that displays the sublicense information.
<i>SublicenseInfoApplet.java</i>	The Java applet for displaying the sublicense information.
<i>readMe.pdf</i>	This document.

Flow of Communication

The flow discussed below will provide you with an idea of how the communication takes place between the client and server to fulfill the Sentinel License Monitor requests:

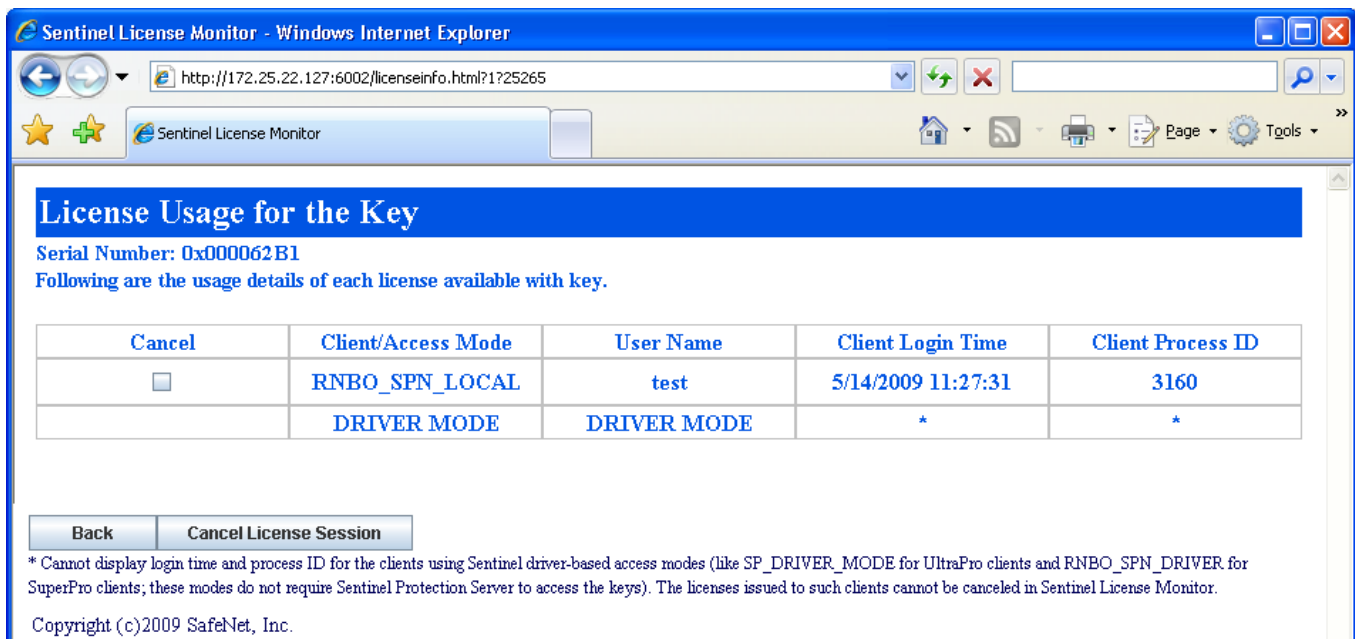
1. Client sends a license monitor request via a Web browser. The HTTP request is typed in using the following format: `http://IP address (or system name):HTTP port number`. Make sure that Sentinel Protection Server is running on the system, whose IP address/name is typed.
2. The Sentinel Protection Server sends the *keyinfo.html* page in response.
3. The Web browser displays some static text (such as, the page headings) and also makes a request for the *KeyInfoApplet* applet.
4. The Sentinel Protection Server sends the *KeyInfoApplet* in response.
5. To display the key details, *KeyInfoApplet* needs to parse the XML file. Hence, the applet makes a request for the *keyinfo.xml* file.
6. The Sentinel Protection Server sends *keyinfo.xml* in response.
7. The applet parses the XML file and displays the key details. The Web page looks like this:



Using the KeyInfoApplet

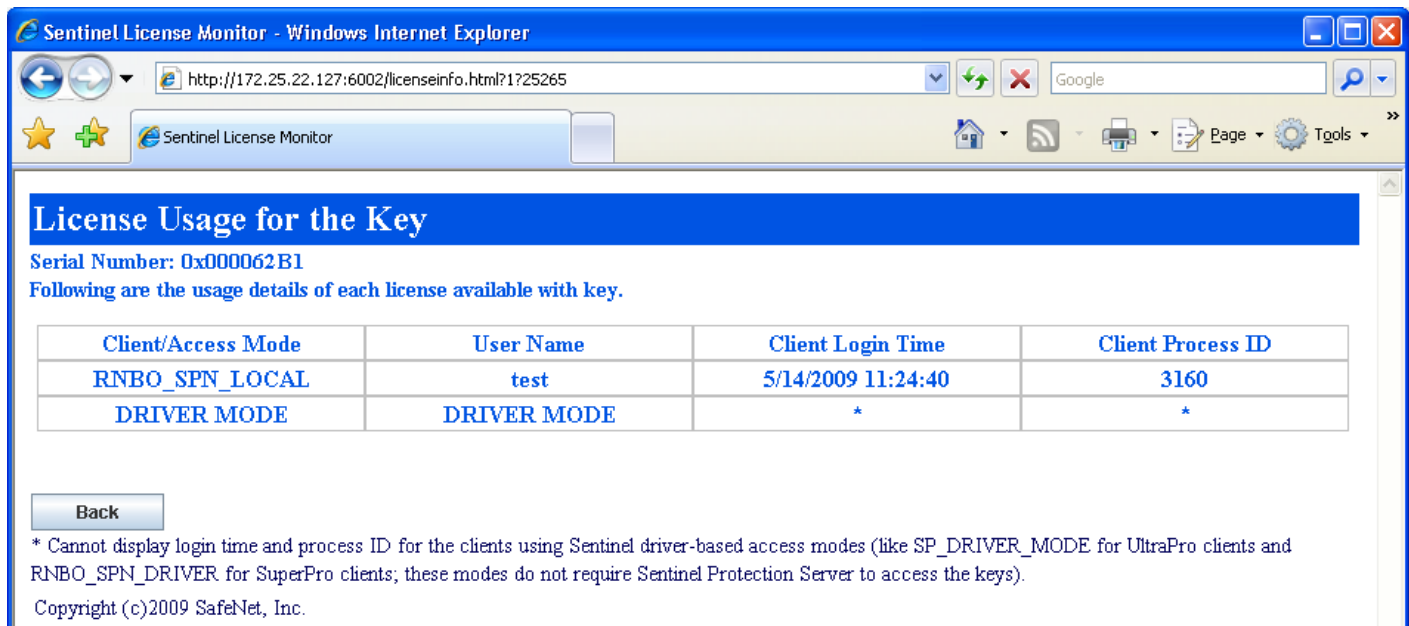
8. To view the details of the licenses issued, the client clicks the key number.
9. Any of the following takes place:

The Sentinel Protection Server sends *CancelInfoApplet* in response if the cancel license functionality is enabled (*sntlpass.dat* is available at: */opt/sentinel/sentinel_protection_server*).



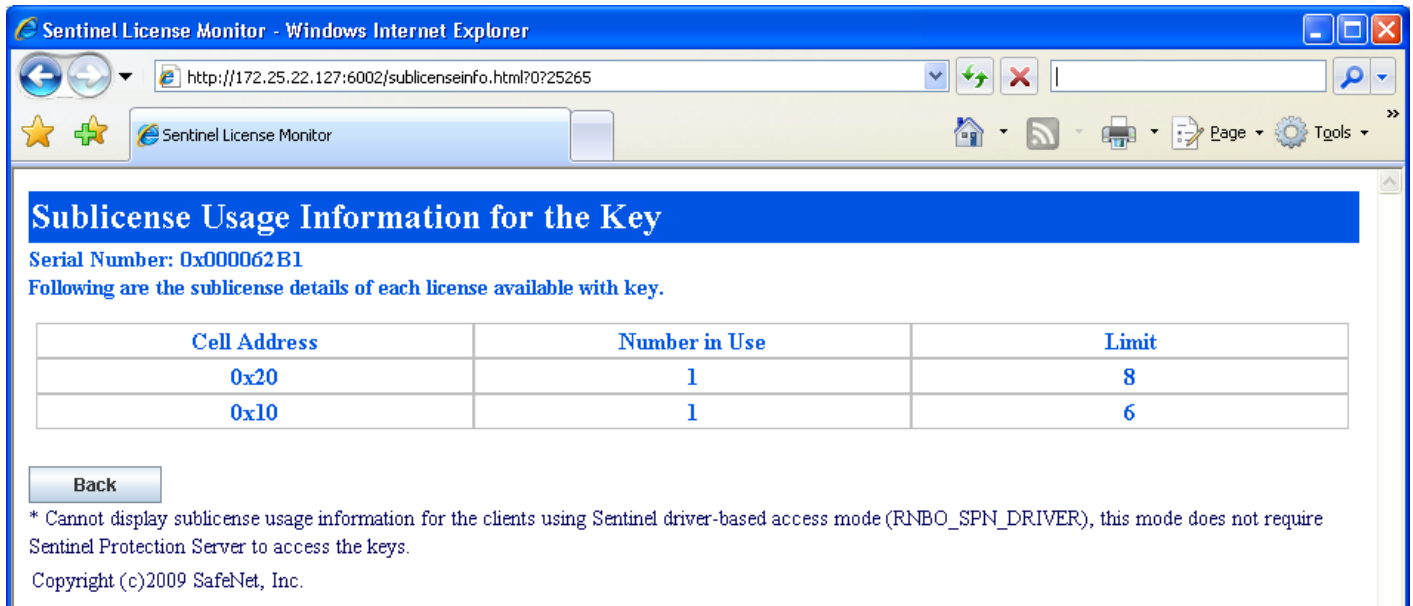
Using the CancellInfoApplet

The Sentinel Protection Server sends *LicenseInfoApplet* in response if the cancel license functionality is disabled.



Using the LicenseInfoApplet

- To view the details of the sublicense usage, click sublicense cell of the corresponding key. The Sentinel Protection Server sends *SublicenseInfoApplet*.



Using the SublicenseInfoAppletClass Descriptions

XMLParser

This is used for parsing the XML buffer.

Function

Vector getXMLTagValue(String xml, String tag)

A method to parse the XML buffer and return the vector that contains all the values found for the given tag.

KeyInfoApplet

This displays the details of the keys attached to the system using *keyinfo.xml*.

Function (Do not modify this function)

getKeyInfoXML_File_from_Server()

A method to request the *keyinfo.xml* file from the Sentinel Protection Server.

LicenseInfoApplet

This displays the details of the licenses obtained from the key using *licenseinfo.xml*.

Function (Do not modify this function)

getLicenseInfoXML_File_from_Server()

A method to request the *licenseinfo.xml* file from the Sentinel Protection Server.

SublicenseInfoApplet

This applet displays the details of the sublicenses obtained from the key using *sublicenseinfo.xml*.

Function (Do not modify this function)

`getSublicenseInfoXML_File_from_Server()`

A method to request the *sublicenseinfo.xml* from the Sentinel Protection Server.

Build Instructions

1. Edit the batch file *build.sh* to modify the `JDK_PATH` variable as per the location of JDK.
2. To build, type **build** on the command prompt. The following files will be generated in the `\root` directory:

- ❑ *keyinfo.html*
- ❑ *licenseinfo.html*
- ❑ *cancelinfo.html*
- ❑ *KeyInfoApplet.class*
- ❑ *KeysRow.class*
- ❑ *LabelAdapter.class*
- ❑ *LicenseInfoApplet.class*
- ❑ *LicenseRow.class*
- ❑ *XMLParser.class*
- ❑ *CMd5Chap.class*
- ❑ *CMessage.class*
- ❑ *CPasswordDlg.class*
- ❑ *CancelInfoApplet.class*
- ❑ *CancelLicenseRow.class*
- ❑ *\resources\AppletResources.class*
- ❑ *\resources\AppletResources_en.class*
- ❑ *sublicenseinfo.html*
- ❑ *SublicenseInfoApplet.class*
- ❑ *SublicenseRow.class*

Deploying the Modified Sentinel License Monitor

You must modify your installation program to deploy the `\root` directory and its contents at the path where Sentinel Protection Server is installed.

Sentinel Protection Server is installed at the following path on a Linux system: `/opt/sentinel/sentinel_protection_server`.

Format of the *keyinfo.xml* File

```
<?xml version="1.0" encoding="UTF-8"?>
<!-- DO NOT EDIT THIS FILE - it is used by Sentinel Protection Server -->
  <ServerInfo>
    <ServerVersion>7.6.0</ServerVersion>
  </ServerInfo>
  <KeysInfo>
    <KeyDetails>
      <KeyType>0</KeyType>
      <SerialNumber>00000002</SerialNumber>
      <HardLimit>1</HardLimit>
      <LicenseInUse>0</LicenseInUse>
      <NumTimeOut>0</NumTimeOut>
      <HighestUse>0</HighestUse>
      <PartNumber>*</PartNumber>
      <DeviceCapabilities>15</DeviceCapabilities>
      <FormFactor>1</FormFactor>
    </KeyDetails>
    <KeyDetails>
      <KeyType>0</KeyType>
      <SerialNumber>00000009</SerialNumber>
      <HardLimit>5</HardLimit>
      <LicenseInUse>0</LicenseInUse>
      <NumTimeOut>0</NumTimeOut>
      <HighestUse>0</HighestUse>
      <PartNumber>*</PartNumber>
      <DeviceCapabilities>15</DeviceCapabilities>
      <FormFactor>1</FormFactor>
    </KeyDetails>
  </KeysInfo>
```

Format of the *licenseinfo.xml* File

```
<?xml version="1.0" encoding="UTF-8"?>
<!--Do NOT EDIT THIS FILE-it is used by the Sentinel Protection
Server -->

<KeyConfiguration>
  <SerialNumber>00000005</SerialNumber>
</KeyConfiguration>
<LicenseInfo>
  <LicenseDetails>
    <ClientIPAddress>SP_LOCAL_MODE</ClientIPAddress>
    <ClientUserName>Administrator</ClientUserName>
    <ClientLogTime>2/7/2008 19:49:2</ClientLogTime>
    <ClientProcessID>1560</ClientProcessID>
  </LicenseDetails>
  <LicenseDetails>
    <ClientIPAddress>SP_DRIVER_MODE</ClientIPAddress>
    <ClientUserName>SP_DRIVER_MODE</ClientUserName>
    <ClientLogTime>*</ClientLogTime>
    <ClientProcessID>*</ClientProcessID>
  </LicenseDetails>
</LicenseInfo>1
```

1. Cannot display login time and process ID for the clients using Sentinel driver-based access modes (like SP_DRIVER_MODE for UltraPro clients and RNBO_SPN_DRIVER_MODE for SuperPro clients; these modes do not require Sentinel Protection Server to access the keys). The licenses issued to such clients cannot be cancelled in Sentinel License Monitor.

Format of the *sublicenseinfo.xml* File

```
<?xml version="1.0" encoding="UTF-8"?>
<!--Do NOT EDIT THIS FILE-it is used by the Sentinel Protection
Server -->
<SublicenseInfo>

    <SerialNumber>00000002</SerialNumber>
    <Sublicense>
        <SubLicCellNo>24</SubLicCellNo>
        <SubLicLimit>16</SubLicLimit>
        <SubLicInUse>1</SubLicInUse>
    </Sublicense>

    <Sublicense>
        <SubLicCellNo>22</SubLicCellNo>
        <SubLicLimit>5</SubLicLimit>
        <SubLicInUse>1</SubLicInUse>
    </Sublicense>
</SublicenseInfo>2
```

2. Cannot display sublicense usage for the clients that are using Sentinel driver-based access mode (RNBO_SPN_DRIVER_MODE). This mode does not require Sentinel Protection Server to access the keys.

Getting Help

If you have questions, need additional assistance, or encounter a problem, please contact our Technical Support using the options provided below:

Technical Support Contact Information

Customer Connection Center (C3)	
<i>http://c3.safenet-inc.com</i>	
Existing customers with a Customer Connection Center account can log in to manage incidents, get latest software upgrades and access the complete SafeNet Knowledge Base repository.	
Support and Downloads	
<i>http://www.safenet-inc.com/Support</i>	
Provides access to knowledge base and quick downloads for various products.	
E-mail-based Support	
support@safenet-inc.com	
Telephone-based Support	
United States	(800) 545-6608, (410) 931-7520
France	0825 341000
Germany	01803 7246269
United Kingdom	0870 7529200, +1 410 931-7520
Australia and New Zealand	+1 410 931-7520
China	(86) 10 8851 9191
India	+1 410 931-7520

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