

# Customizing Sentinel License Monitor - ReadMe

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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.

## Basic Requirements

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

- Java 2 SDK version 1.4 (or higher)
- Working knowledge of Java applets.

## Available Files

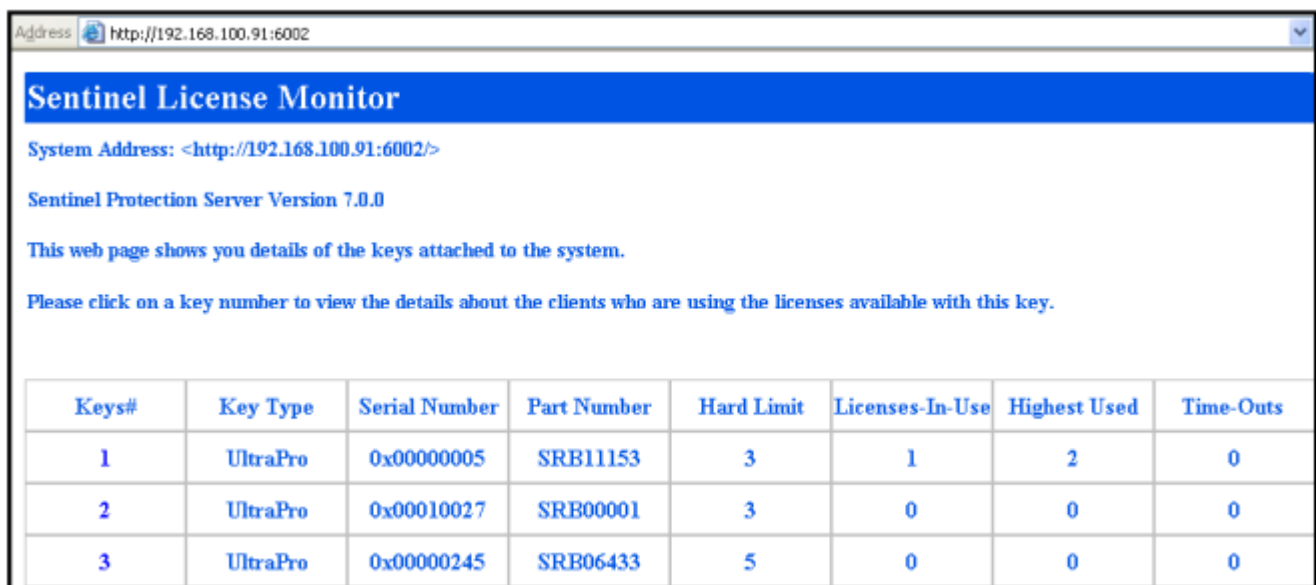
The following files are available in the `/sentinel_license_monitor/source` directory:

File Name	Description
<code>keyinfo.html</code>	An HTML file to display the key information.
<code>licenseinfo.html</code>	An HTML file to display the license information.
<code>AppletResources.java</code>	The resource file.
<code>AppletResources_en.java</code>	The resource file (for English locale).
<code>KeyInfoApplet.java</code>	The source of the Java applet used for displaying the key details.
<code>LicenseInfoApplet.java</code>	The source of the Java applet used for displaying the license details.
<code>XMLParser.java</code>	The parser for the XML file.
<code>build.sh</code>	The batch file to build and show output.

## 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.htm* 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:

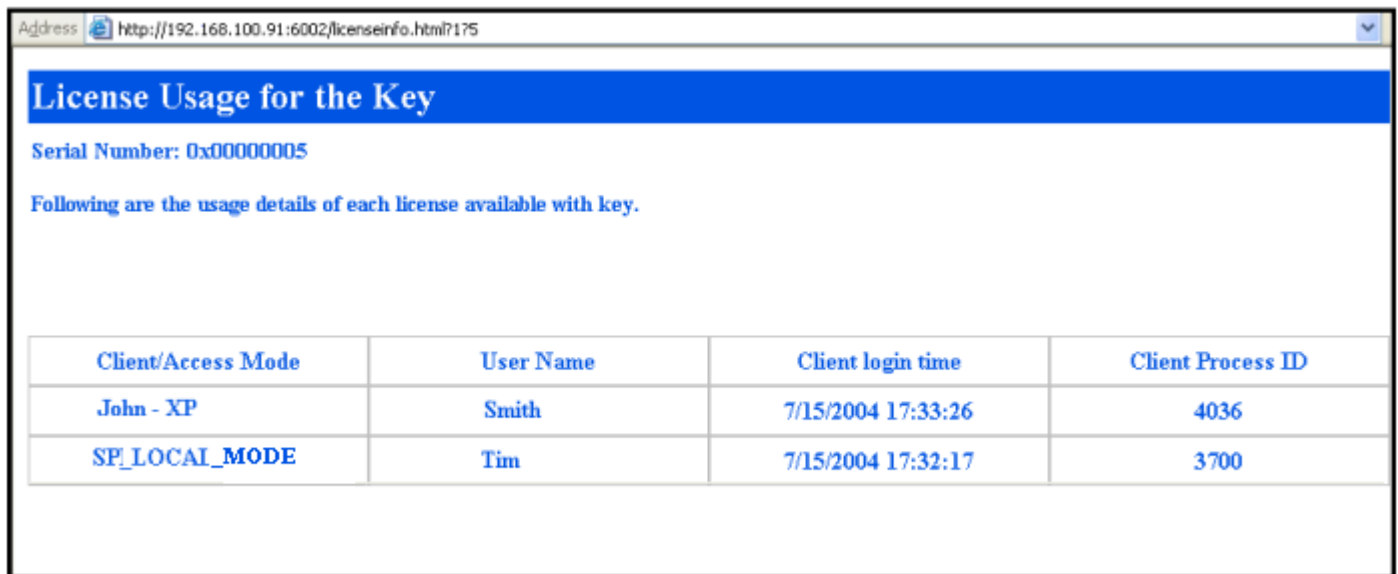



Keys#	Key Type	Serial Number	Part Number	Hard Limit	Licenses-In-Use	Highest Used	Time-Outs
1	UltraPro	0x00000005	SRB11153	3	1	2	0
2	UltraPro	0x00010027	SRB00001	3	0	0	0
3	UltraPro	0x00000245	SRB06433	5	0	0	0

### The *Keyinfo.htm* File: An Example

8. To view the details of the licenses issued, the client clicks the key number.
9. The Sentinel Protection Server sends the *licenseinfo.htm* page in response.
10. The Web browser displays some static text (such as, the page headings) and also requests for the *LicenseInfoApplet* applet.
11. The Sentinel Protection Server sends the *LicenseInfoApplet* in response.

12. To display the license details, *LicenseInfoApplet* needs to parse the XML file. Hence, the applet makes a request for the *LicenseInfo.xml* file.
13. The Sentinel Protection Server sends *LicenseInfo.xml* in response.
14. The applet parses the XML file and displays the license details. The Web page looks like this:



Address  http://192.168.100.91:6002/licenseinfo.html?175

### License Usage for the Key

Serial Number: 0x00000005

Following are the usage details of each license available with key.

Client/Access Mode	User Name	Client login time	Client Process ID
John - XP	Smith	7/15/2004 17:33:26	4036
SP_LOCAL_MODE	Tim	7/15/2004 17:32:17	3700

**The *LicenseInfo.htm* File: An Example**

## Class 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 *LicnseInfo.xml* file from the Sentinel Protection Server.

## Build Instructions

1. Edit the batch file *build.bat* to modify the `JDK_PATH` variable as per the location of JDK1.4.
2. To build, type **build** on the command prompt. The following files will be generated in the `\root` directory:
  - ❑ *keyinfo.html*
  - ❑ *licenseinfo.html*
  - ❑ *KeyInfoApplet.class*
  - ❑ *KeysRow.class*
  - ❑ *LabelAdapter.class*
  - ❑ *licenseinfo*
  - ❑ *LicenseInfoApplet.class*
  - ❑ *LicenseRow.class*
  - ❑ *XMLParser.class*
  - ❑ *\resources\AppletResources.class*
  - ❑ *\resources\AppletResources\_en.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*.

For details on deploying the Sentinel driver and Sentinel Protection Server, refer to the Sentinel Protection Installer Help.

## 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>7.0.0</ServerVersion>
  </ServerInfo>
  <KeysInfo>
    <KeyDetails>
      <KeyType>1</KeyType>
      <SerialNumber>00000002</SerialNumber>
      <HardLimit>1</HardLimit>
      <LicenseInUse>0</LicenseInUse>
      <NumTimeOut>0</NumTimeOut>
      <HighestUse>0</HighestUse>
      <PartNumber>SRB11150</PartNumber>
    </KeyDetails>
    <KeyDetails>
      <KeyType>0</KeyType>
      <SerialNumber>00000009</SerialNumber>
      <HardLimit>3</HardLimit>
      <LicenseInUse>0</LicenseInUse>
      <NumTimeOut>0</NumTimeOut>
      <HighestUse>0</HighestUse>
      <PartNumber>*</PartNumber>
    </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>12/15/2003 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
```

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1. Unable to obtain the login time and process ID for clients using the SP\_DRIVER\_MODE access mode.



## Technical Support

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

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