



SafeGuard LM 6 SafeGuardManager User Guide

SafeGuardManager is one of three ways to generate licenses.

SafeGuardManager also manages your customer information and license generation tasks. Your customer information and licenses are saved to disk. Input your customer and contact information, generate the appropriate licenses, and send them to your customer. Customer information can be retrieved, reviewed or updated at any time.

The License Generation Applications:

- **SafeGuardManager:**
Outlined in this document
- **pskeycode:**
Command line utility. See: *PSKeycode.pdf*
- **Product Activation Server:**
Provide licenses over the Internet. See: *PASUserGuide.pdf*

In this document we will discuss SafeGuardManager for both node-locked and floating license generation.

SafeGuardManager.jar is located in the SafeGuardManager folder within your platform installation folder.

IMPORTANT: The Java Runtime Environment (JRE) or the Java Development Kit (JDK) MUST be installed on your computer to launch SafeGuardManager.jar. You will need JRE/JDK 8u144 or higher.

Two ways to launch SafeGuardManager.jar:

- With just the (JRE) installed, you can double click on the SafeGuardManager.jar file located in the SafeGuardManager folder.
- To launch SafeGuardManager from a Command Prompt (Windows) or Terminal Window (Linux / macOS) using the “**java -Djava.library.path=. -jar SafeGuardManager.jar**” command, you will need the (JDK) installed.

Note: If you download either the (JRE) or (JDK) from <https://oracle.com> you will have to create an Oracle account. If you download the JRE from <https://java.com> you will not need to create an account with Oracle. The (JDK) can only be downloaded from Oracle.

Main Screen:

NOTE: For illustration purposes, the macOS version of SafeGuardManager was used for screenshots in this document. Linux and Windows are similar.

You should first select which type of encryption / hash algorithm to use. Click on “Encryption”. The default is rc4. sha256 is an alternative. For this example, we will select sha256.

The screenshot shows the 'SafeGuard LM (Manager)' application window. The title bar indicates 'Persistent Security, LLC.' and the menu bar includes 'File', 'Edit', and 'Help'. The main title is 'SafeGuard LM (Manager)'. The interface is divided into four main sections: 'Customer Information', 'License Generation', 'Generated Licenses', and 'Status'. The 'Customer Information' section has tabs for 'Company' and 'Contact', with the 'Company' tab selected. It contains input fields for Company, Address, Address 2, City, State (n/a), Zip, United States, Phone, Cell, Fax, E-mail, and Web. The 'License Generation' section has tabs for 'Floating', 'Server', 'Encryption', and 'Node-locked', with 'Encryption' selected. It contains a dropdown menu for 'Select encryption/hash method for certificates' with 'sha256' selected. The 'Generated Licenses' and 'Status' sections are currently empty.

About RC4 and SHA256:

Which of these you decide to use is entirely up to you. The underlying CERTificate= in the component line of each license is already encrypted before it is passed to RC4 / SHA256 during license generation, so with RC4 which is an encryption algorithm and SHA256 which is a hash algorithm, both are really intended to add a layer of protection on top of the already encrypted certificate. The RC4 output is shorter than the SHA256. The SHA256 is always 64 characters in length.

Company information:

The next step is to input the optional company information for whom you are generating license(s) by clicking on the “Company” tab.

The screenshot shows the 'SafeGuard LM (Manager)' application window. The title bar indicates 'Persistent Security, LLC.' and the menu bar includes 'File', 'Edit', and 'Help'. The main window is divided into several sections:

- Customer Information:** This section has two tabs: 'Company' (selected) and 'Contact'. It contains the following fields:
 - Company: ACME Inc.
 - Address: 123 Main St
 - Address 2: Suite 300
 - City: Jacksonville
 - State: FL (dropdown)
 - Zip: 32201
 - United States (dropdown)
 - Phone: 904-555-1212
 - Cell: (empty)
 - Fax: (empty)
 - E-mail: info@example.com
 - Web: http://example.com
- License Generation:** This section has four tabs: 'Floating', 'Server', 'Encryption', and 'Node-locked' (selected). It contains the following fields:
 - Component: (empty)
 - Version: (empty)
 - ID: (empty)
 - IdType: ethernet (dropdown)
 - Expires: (empty) with a '<select>' dropdown
 - Buttons: 'Generate' and 'Clear'
- Generated Licenses:** An empty rectangular area for displaying generated licenses.
- Status:** An empty rectangular area for displaying the status of the license generation process.

Contact information:

The next step is to input the optional contact information for whom you are generating license(s) by clicking on the “Contact” tab.

The screenshot shows the 'SafeGuard LM (Manager)' application window. The title bar indicates 'Persistent Security, LLC.' and the menu bar includes 'File', 'Edit', and 'Help'. The main title is 'SafeGuard LM (Manager)'. The interface is divided into four main sections:

- Customer Information:** This section has two tabs: 'Company' and 'Contact'. The 'Contact' tab is active. It contains the following fields:
 - First Name: John
 - Last Name: Anderson
 - Title: Lead Developer
 - Department: Software
 - Phone: 904-555-1212
 - Ext: 300
 - Cell: (empty)
 - Email: janderson@example.com
 - Secondary Email: (empty)
- License Generation:** This section has four tabs: 'Floating', 'Server', 'Encryption', and 'Node-locked'. The 'Node-locked' tab is active. It contains the following fields:
 - Component: (empty)
 - Version: (empty)
 - ID: (empty)
 - IdType: ethernet (dropdown menu)
 - Expires: (empty) with a '<select>' dropdown menu
 - Buttons: 'Generate' and 'Clear'
- Generated Licenses:** An empty rectangular box for displaying generated licenses.
- Status:** An empty rectangular box for displaying the status of the license generation process.

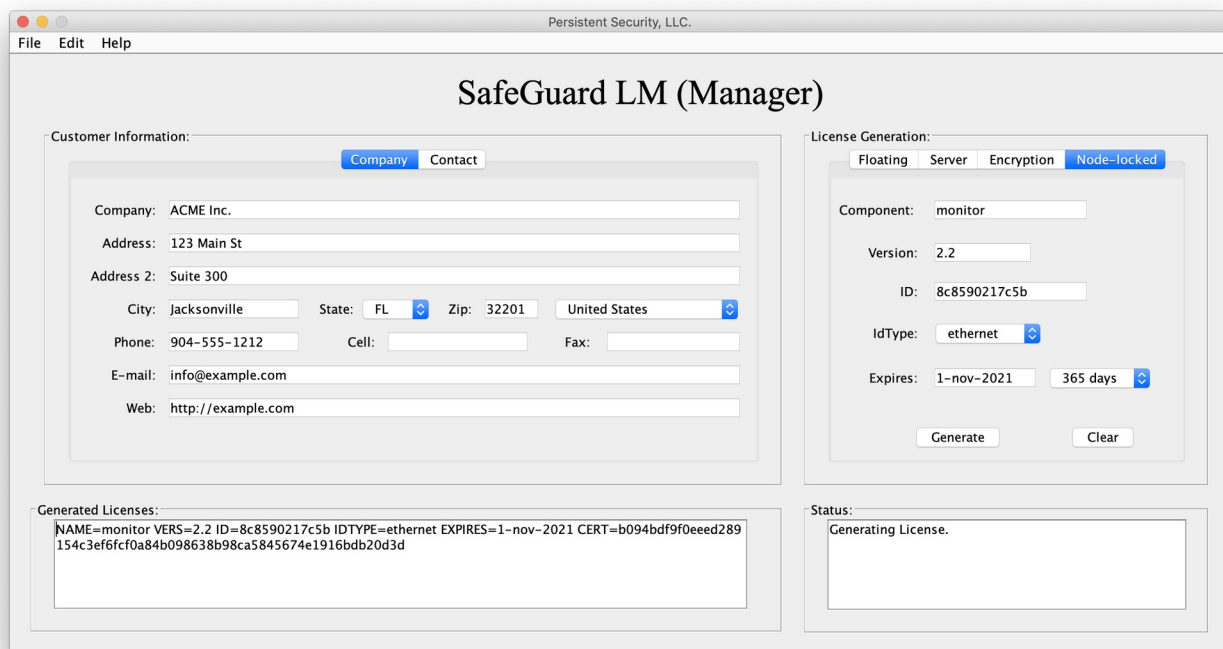
How to generate a node-locked license:

Click on the “Node-locked” tab.

We will create a node-locked license named “monitor”, version “2.2”, locked to the MAC/Ethernet address “8c8590217c5b” and will timeout on November 1, 2021.

You can use the dropdown to select from a list of number of days from today, or you can enter an exact date yourself using the SafeGuard LM date format of *dd-mmm-yyyy*, where *dd* is the numeric day (1 - 31), *mmm* is the month (jan, feb, mar, apr, may, jun, jul, aug, sep, oct, nov, dec), and *yyyy* being the four digit year. The dashes are required between the fields.

Now that the node-locked information has been entered, click on the “Generate” button to generate the license.



Save the node-locked license information to disk:

Click File→Save Customer. For this example, we will name it ACME-nodelocked. This file contains the binary representation of the information you entered when creating the node-locked license.

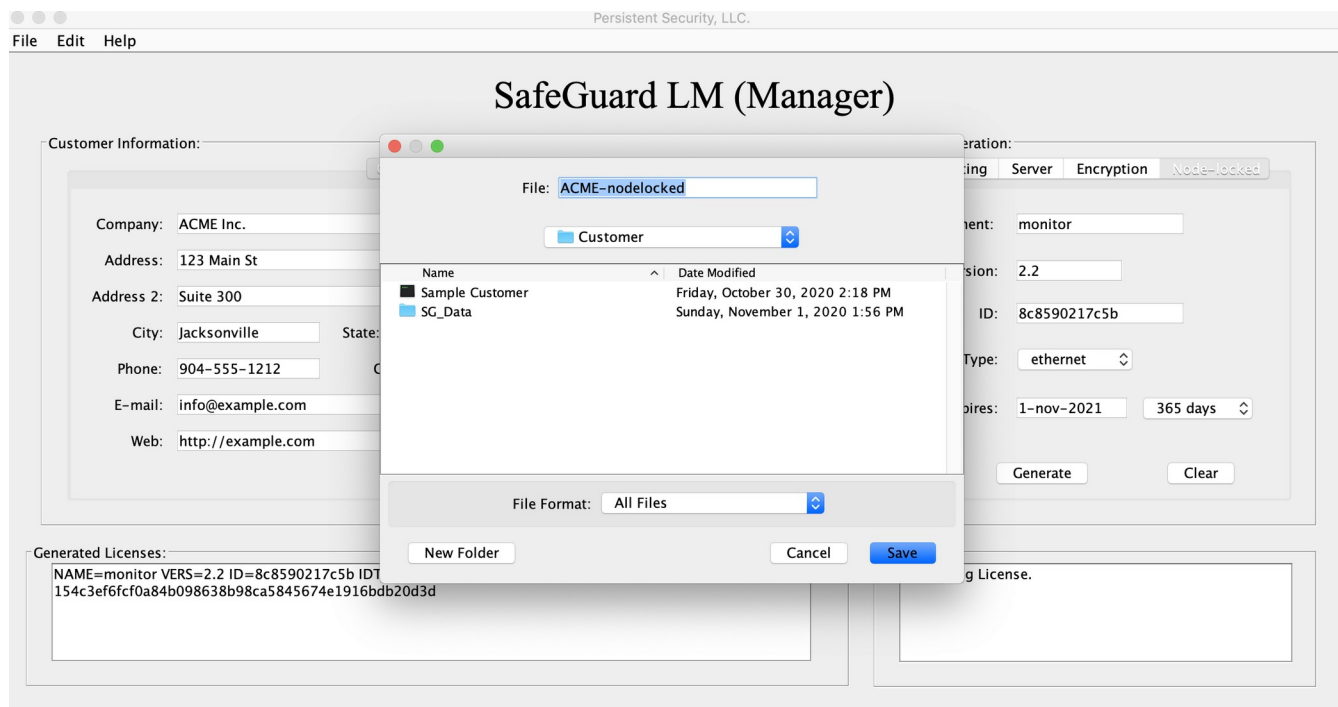
Two other files are created under the SG_Data folder.

- **ACME-nodelocked.licenses**

The actual license file. You can name it anything you wish when delivering the license file to your customer. We typically name it with a “.lic” extension.

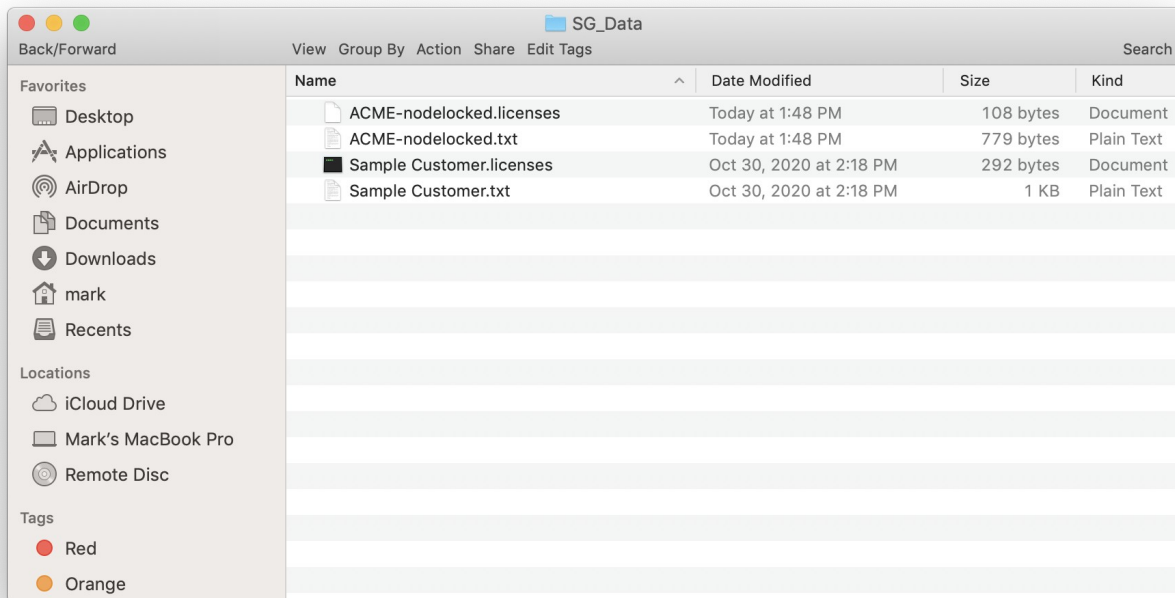
- **ACME-nodelocked.txt**

Printable version of the information you entered.



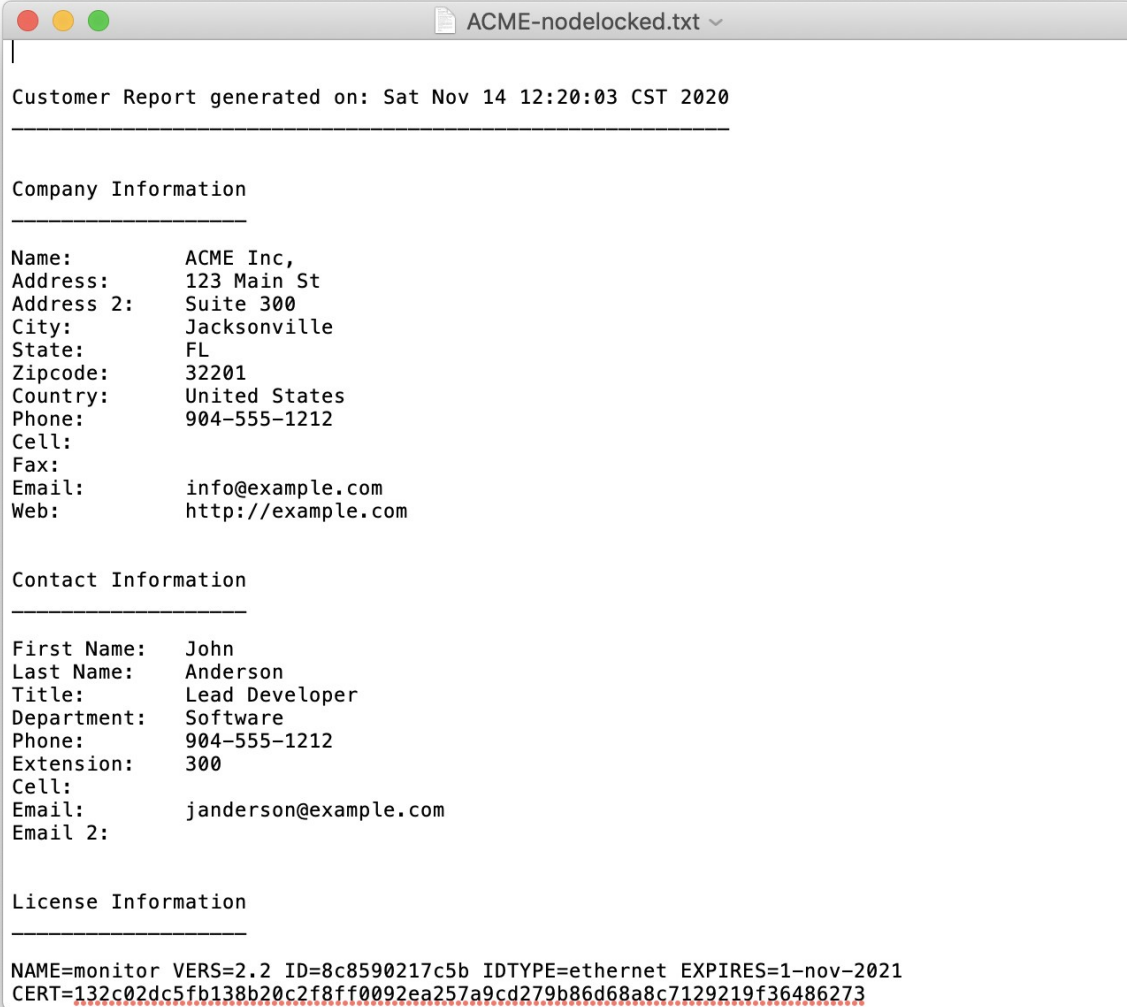
Examining the saved files:

Within the SG_Data folder you will find the two files created from the previous File→Save Customer. *ACME-nodelocked.licenses* and *ACME-nodelocked.txt*.



Printable information:

The contents of *ACME-nodelocked.txt*:



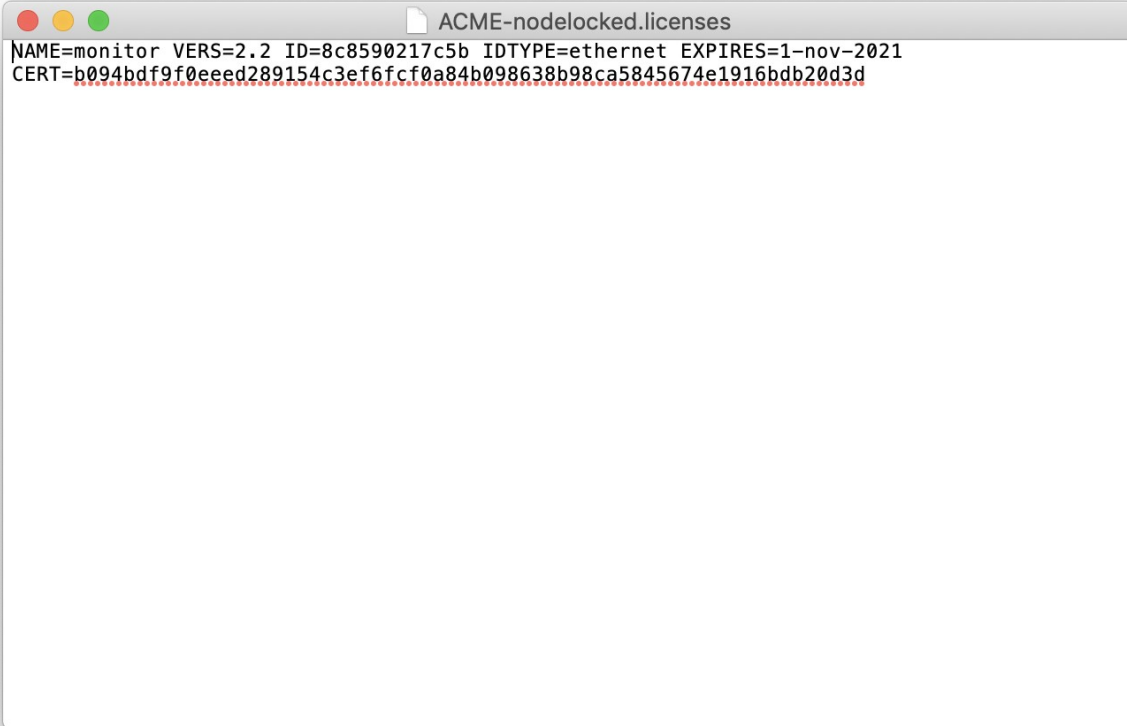
```
ACME-nodelocked.txt
Customer Report generated on: Sat Nov 14 12:20:03 CST 2020
-----
Company Information
-----
Name:          ACME Inc,
Address:       123 Main St
Address 2:     Suite 300
City:         Jacksonville
State:        FL
Zipcode:      32201
Country:      United States
Phone:        904-555-1212
Cell:
Fax:
Email:        info@example.com
Web:          http://example.com

Contact Information
-----
First Name:   John
Last Name:    Anderson
Title:       Lead Developer
Department:  Software
Phone:       904-555-1212
Extension:   300
Cell:
Email:       janderson@example.com
Email 2:

License Information
-----
NAME=monitor VERS=2.2 ID=8c8590217c5b IDTYPE=ethernet EXPIRES=1-nov-2021
CERT=132c02dc5fb138b20c2f8ff0092ea257a9cd279b86d68a8c7129219f36486273
```

The node-locked license file:

The contents of *ACME-nodelocked.licenses*:

A screenshot of a file editor window titled "ACME-nodelocked.licenses". The window contains two lines of text: "NAME=monitor VERS=2.2 ID=8c8590217c5b IDTYPE=ethernet EXPIRES=1-nov-2021" and "CERT=b094bdf9f0eed289154c3ef6fcf0a84b098638b98ca5845674e1916bdb20d3d". The second line is underlined with a red dashed line.

```
NAME=monitor VERS=2.2 ID=8c8590217c5b IDTYPE=ethernet EXPIRES=1-nov-2021
CERT=b094bdf9f0eed289154c3ef6fcf0a84b098638b98ca5845674e1916bdb20d3d
```

How to generate a floating license:

Enter the server information. Click on the “Server” tab. For the Server Name, you can enter the actual hostname or IP address of your customer’s machine that will host the license server, or to make it easy, you can **always** use the name “localhost” which is recommended. By default, the Server ID is only locked to the MAC/Ethernet address. Enter the MAC/Ethernet address of your customer’s license server. For the Server Port, we will use the default which is 29750.

The screenshot shows the 'SafeGuard LM (Manager)' application window. The title bar reads 'Persistent Security, LLC.' and the menu bar includes 'File', 'Edit', and 'Help'. The main window is divided into several sections:

- Customer Information:** Contains a 'Company' tab (selected) and a 'Contact' tab. Fields include: Company (ACME Inc.), Address (123 Main St), Address 2 (Suite 300), City (Jacksonville), State (FL), Zip (32201), United States (country dropdown), Phone (904-555-1212), Cell, Fax, E-mail (info@example.com), and Web (http://example.com).
- License Generation:** Contains tabs for 'Floating', 'Server' (selected), 'Encryption', and 'Node-locked'. A sub-section titled 'Enter the license server information' includes: Server Name (localhost), Server ID (5a4590217c5b), IdType (ethernet dropdown), and Server Port (29750).
- Generated Licenses:** An empty rectangular area for displaying generated licenses.
- Status:** An empty rectangular area for displaying the status.

Advanced users: It is possible to lock the floating license server to the vendor defined host ID. (See the VendorIDKit.pdf for more information). The vendor defined host ID might be a hardware key or some other device that you define.

Floating license information:

Enter the floating license information. Click on the “Floating” tab. For this example, we will create a floating license named “monitor”, version “2.2”, locked to the MAC/Ethernet address “8c8590217c5b” and will timeout on November 1, 2021, with 6 concurrent licenses available.

You can use the dropdown to select from a list of number of days from today, or you can enter an exact date yourself using the SafeGuard LM date format of *dd-mmm-yyyy*, where *dd* is the numeric day (1 - 31), *mmm* is the month (jan, feb, mar, apr, may, jun, jul, aug, sep, oct, nov, dec), and *yyyy* being the four digit year. The dashes are required between the fields.

NOTE: Make sure the “Generate with SERVER line” is checked for the first license generated and unchecked for subsequent licenses.

Now that the floating information has been entered, click on the “Generate” button to generate the license file.

The screenshot shows the SafeGuard LM (Manager) application window. The title bar reads "Persistent Security, LLC." and the menu bar includes "File", "Edit", and "Help". The main window is titled "SafeGuard LM (Manager)".

Customer Information:

- Company: ACME Inc.
- Address: 123 Main St
- Address 2: Suite 300
- City: Jacksonville
- State: FL
- Zip: 32201
- United States
- Phone: 904-555-1212
- Cell:
- Fax:
- E-mail: info@example.com
- Web: http://example.com

License Generation:

- Generate with SERVER line:
- Component: monitor
- Version: 2.2
- Count: 6
- Expires: 26-oct-2021 (365 days)

Generated Licenses:

```
SERVER=localhost ID=5a4590217c5b IDTYPE=ethernet PORT=29750
NAME=monitor VERS=2.2 ID=5a4590217c5b IDTYPE=ethernet COUNT=6 EXPIRES=26-oct-2021 CERT=06aa5c9
b2d57f2d46a940a77d07b
```

Status:

Generating License.

Save the floating license information to disk:

Click File→Save Customer. For this example, we will name it ACME-floating. This file contains the binary representation of the information you entered when creating the floating license.

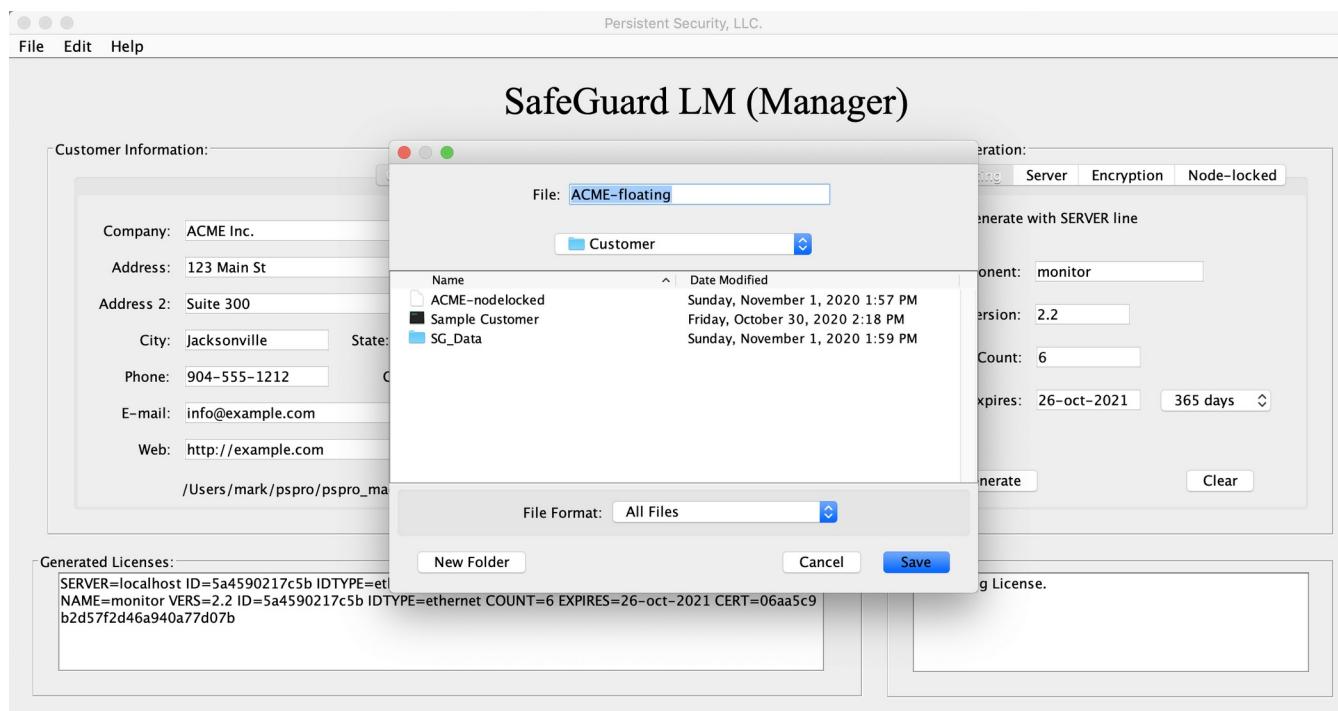
Two other files are created under the SG_Data folder.

- **ACME-floating.licenses**

The actual license file. You can name it anything you wish when delivering the license file to your customer. We typically name it with a “.lic” extension.

- **ACME-floating.txt**

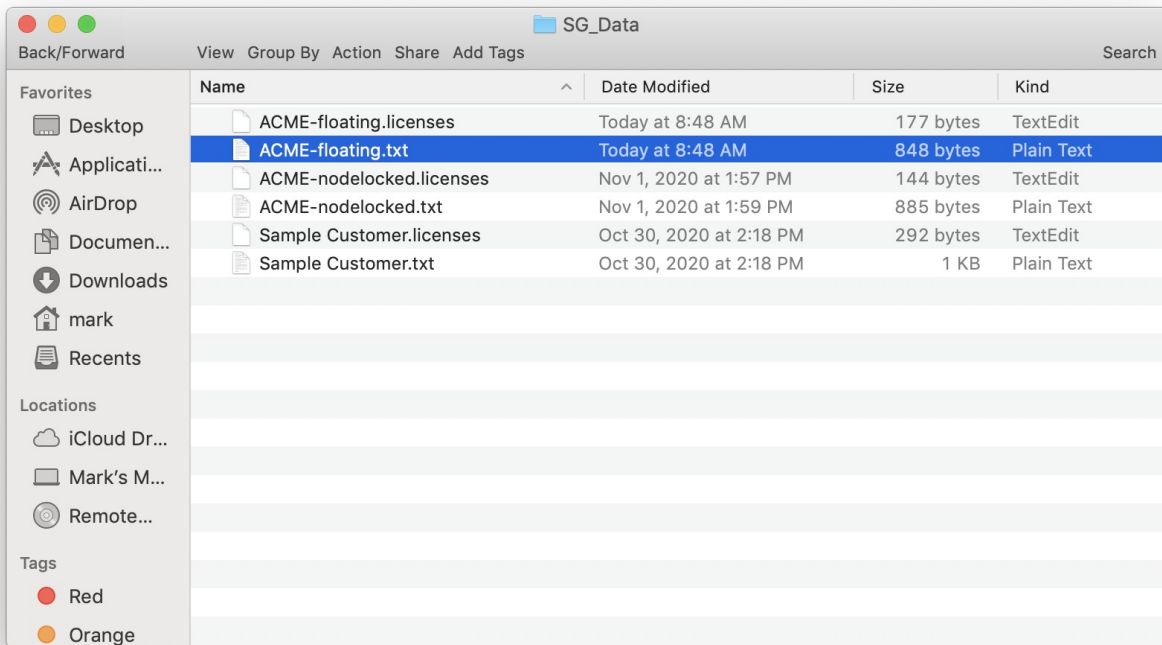
Printable version of the information you entered.



Examine the saved files:

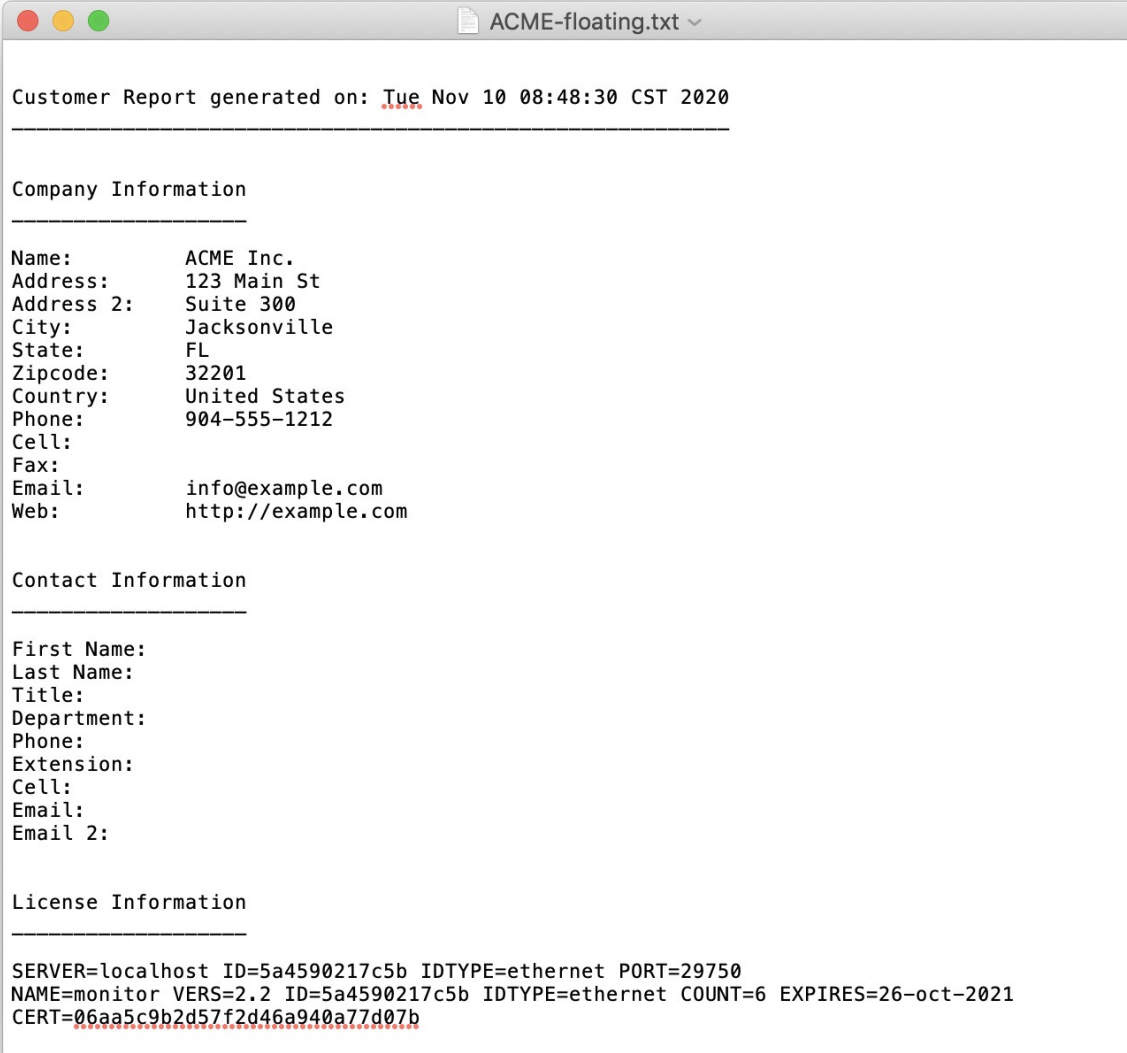
Within the SG_Data folder you will find the two files created from the previous File→Save Customer. *ACME-floating.licenses* and *ACME-floating.txt*.

Examine the *ACME-floating.txt* file:



Printable information:

The contents of *ACME-floating.txt*:

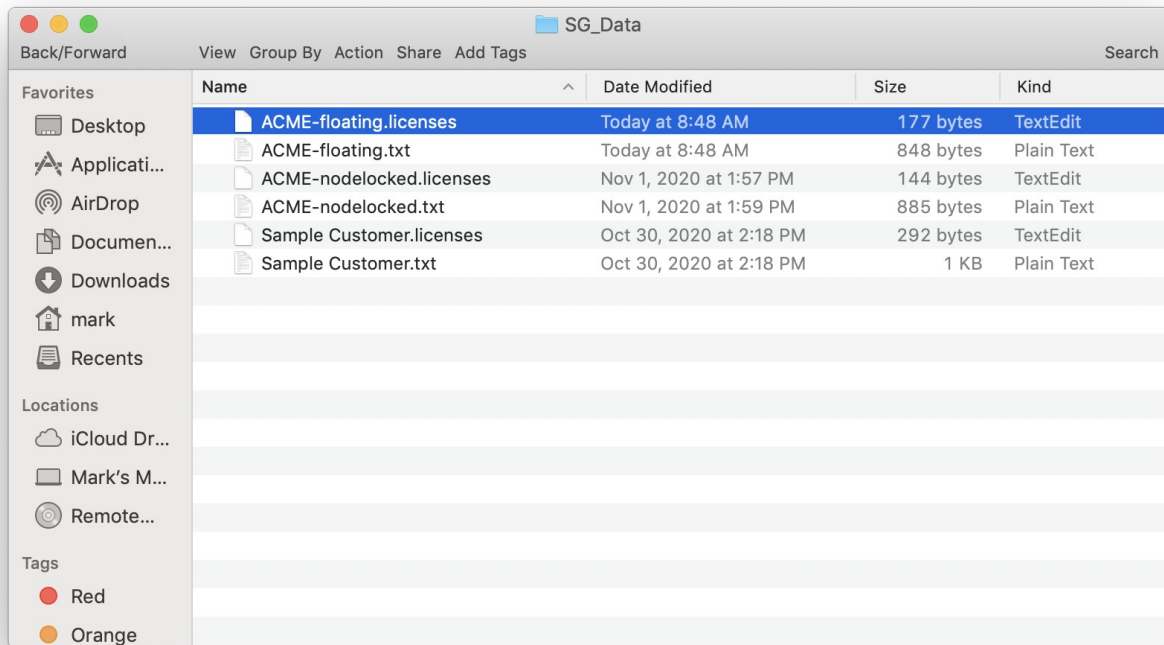


```
ACME-floating.txt
Customer Report generated on: Tue Nov 10 08:48:30 CST 2020
-----
Company Information
-----
Name:          ACME Inc.
Address:       123 Main St
Address 2:    Suite 300
City:         Jacksonville
State:        FL
Zipcode:      32201
Country:      United States
Phone:        904-555-1212
Cell:
Fax:
Email:        info@example.com
Web:          http://example.com

Contact Information
-----
First Name:
Last Name:
Title:
Department:
Phone:
Extension:
Cell:
Email:
Email 2:

License Information
-----
SERVER=localhost ID=5a4590217c5b IDTYPE=ethernet PORT=29750
NAME=monitor VERS=2.2 ID=5a4590217c5b IDTYPE=ethernet COUNT=6 EXPIRES=26-oct-2021
CERT=06aa5c9b2d57f2d46a940a77d07b
```

Examine the *ACME-floating.licenses* file:



The floating license file:

The contents of *ACME-floating.licenses*:



```
SERVER=localhost ID=5a4590217c5b IDTYPE=ethernet PORT=29750  
NAME=monitor VERS=2.2 ID=5a4590217c5b IDTYPE=ethernet COUNT=6 EXPIRES=26-oct-2021  
CERT=06aa5c9b2d57f2d46a940a77d07b
```