Padlock Manager (UI) User's Guide

PADLOCK

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Padlock Manager Overview

Padlock Manager Features

Padlock Manager enables any member of your organization (even the non-technical ones) to easily perform a variety of license management tasks, such as license creation, license editing, importing, and exporting.

(capabilities)

Padlock Manager Layout

The application layout is shown below. The layout has been redesigned for the Padlock 2.x series to provide a more natural and productive UI, one which is tuned for the workflow of license management. See the descriptions below:
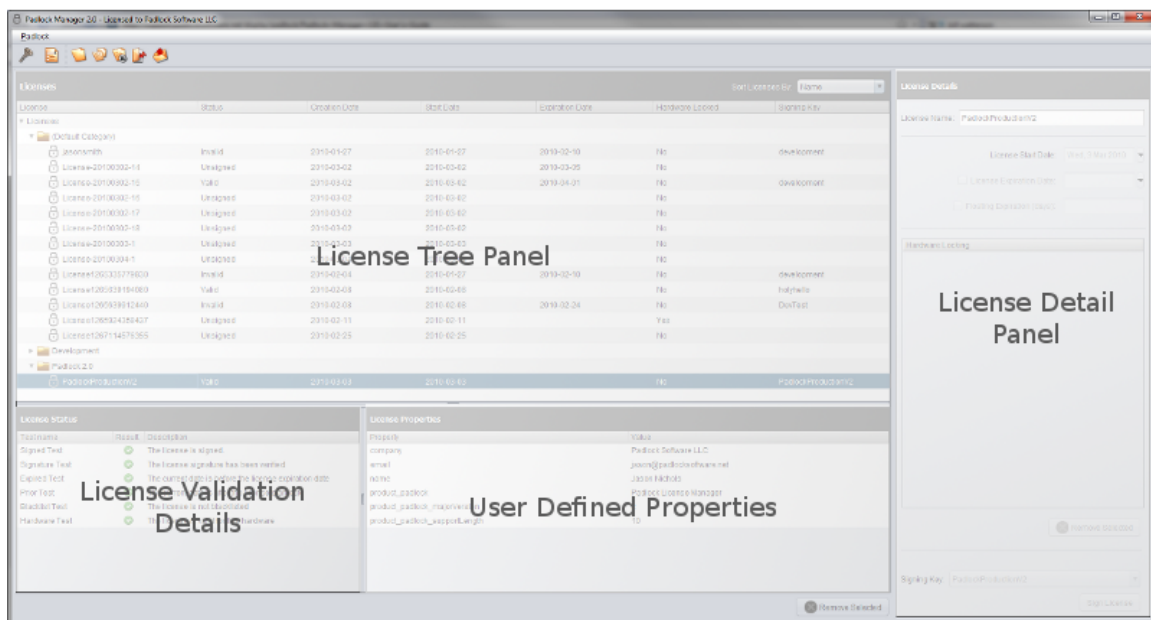
License Tree Panel - This shows all licenses known to the Padlock Manager along with various details about each license. Details include name, validation status, creation/start/expirations dates, hardware locking, and the key used to sign the license.

License Detail Panel - If the a single license is selected in the License Tree, this panel will show license details. If the license has not yet been signed you will also be able to edit license parameters here.

License Validation Details - This table shows the output of the validation results, showing each test performed and the result of that test.

User Defined Properties - This table shows all the user key/value properties that have been defined for this license. If the license has not yet been signed they can be modified, added, or removed in place.

Toolbars - The topmost toolbar contains shortcuts to other utility dialogs within Padlock Manager. From left to right they are the Key Manager, Template Manager, license creation button, license copy button, delete, import, and export buttons. All are discussed in detail in the following sections.

Menu Items - The Padlock Menu contains the About Dialog for setting the Padlock License and the Preferences dialog for setting folder locations.

About Dialog - Allows the user to select a Padlock License

In Depth

License Tree

The license tree is the center of Padlock Manager. It's designed to give you a quick view into the current licenses you've generated as well as the most general details about each license.

Licenses						Sort Licenses By: Name ▼
License	Status	Creation Date	Start Date	Expiration Date	Hardware Locked	Signing Key
▼ Licenses						
▼ 📁 (Default Category)						
🔒 jasonsmith	Invalid	2010-01-27	2010-01-27	2010-02-10	No	development
🔒 License-20100302-14	Unsigned	2010-03-02	2010-03-02	2010-03-05	No	
🔒 License-20100302-15	Valid	2010-03-02	2010-03-02	2010-04-01	No	development
🔒 License-20100302-16	Unsigned	2010-03-02	2010-03-02		No	
🔒 License-20100302-17	Unsigned	2010-03-02	2010-03-02		No	
🔒 License-20100302-18	Unsigned	2010-03-02	2010-03-02		No	
🔒 License-20100303-1	Unsigned	2010-03-03	2010-03-03		No	
🔒 License-20100304-1	Unsigned	2010-03-04	2010-03-04		No	
🔒 License1265335779830	Invalid	2010-02-04	2010-01-27	2010-02-10	No	development
🔒 License1265639194080	Valid	2010-02-08	2010-02-08		No	holyhello
🔒 License1265639912440	Invalid	2010-02-08	2010-02-08	2010-02-24	No	DevTest
🔒 License1265924358437	Unsigned	2010-02-11	2010-02-11		Yes	
🔒 License1267114576355	Unsigned	2010-02-25	2010-02-25		No	
▶ 📁 Development						
▼ 📁 Padlock 2.0						
🔒 PadlockProductionV2	Valid	2010-03-03	2010-03-03		No	PadlockProductio...

Categories

The tree is divided into categories, and on the initial startup only the "Default Category" exists. Categories are dynamic, meaning a category is created when a license is sent to it, and removed when the last license within it leaves. To move a license from one category to another, just right click on the license and choose the appropriate option:

🔒 License-20100302-15	Valid	2010-03-02	2010-03-02	2010-0...
🔒 License-2010030	Move to category ▶	(Default Category)		010-03-02
🔒 License-2010030	Move to new category	Development		010-03-02
🔒 License-20100302-18	Unsigned	Padlock 2.0		010-03-02
🔒 License-20100303-1	Unsigned	2010-03-03	2010-03-03	

Categories are persisted across Padlock Manager restarts and are stored as license metadata, meaning it's not stored as part of the license and will not be visible outside of the Padlock Manager application.

Sorting

By default licenses are sorted by name (within their respective categories). Other options exist and can be used by choosing them in the JComboBox above the License Tree:

Sort Licenses By: Name ▼
- Name
- Start Date
- Expiration Date
- Status

Hardware Locked

No   development

License Details Panel

The License Details Panel shows detailed license data for a single license. This happens automatically whenever a single license is selected from the License Tree.

The Padlock Detail Panel shown above consists of the following:

License Name - This is the given or assigned name for the license. It's strongly suggested that only alphanumeric characters be used for the name.

License Start Date - This is the date the license validity period starts.

License Expiration Date - If selected, the license will become expired on this date. If using the evaluation version of Padlock, this value will be set two weeks after the start date.

Floating Expiration Period - If set, the license will expire <x> days after the first time it is validated for a given user on a given machine. This means multiple users may utilize the same license over different periods of time. This feature can be used on its own or in addition to the hard coded expiration date. Using both provides added security and helps prevent various types of date based attacks.

Hardware Locking Table - If populated with MAC addresses, a license will only be valid if at least one MAC on the host machine has matches at least one address in this table. To add an address, just double click on the <Add an address> row and type in the MAC address. The can be of the form 00:aa:bb:cc:dd:ee or 00aabbccddee. To remove one or more MACs, just select them in the table and click the "Remove Selected"

button.

Signing Key - If signed, the Signing Key combo box will show the Padlock Key used to sign the license. If not signed you can sign the selected license by choosing a key from the drop down and hitting the "Sign License" button. Licenses must be signed before being used by end users! Signing the license ensures that it cannot be modified in any way.

Editing Licenses

If a license has not yet been signed, you can edit any of the fields above in place. The license is automatically saved when editing completes. Once a license is signed the ability to edit fields is disabled.

License Status panel

Each license is run through the validator and its status is shown in the Status Panel. The number of tests can vary depending on the results of the preceding test. For example, an Unsigned license is given only one test. A license which fails the signature verification is run through only two tests.

Test name	Result	Description
Signed Test	✓	The license is signed.
Signature Test	✓	The license signature has been verified
Expired Test	✓	The current date is before the license expiration date
Prior Test	✓	The current date is after the license start date
Blacklist Test	✓	The license is not blacklisted
Hardware Test	✓	The license is valid for this hardware

The panel is read only, but will automatically update whenever the license is updated.
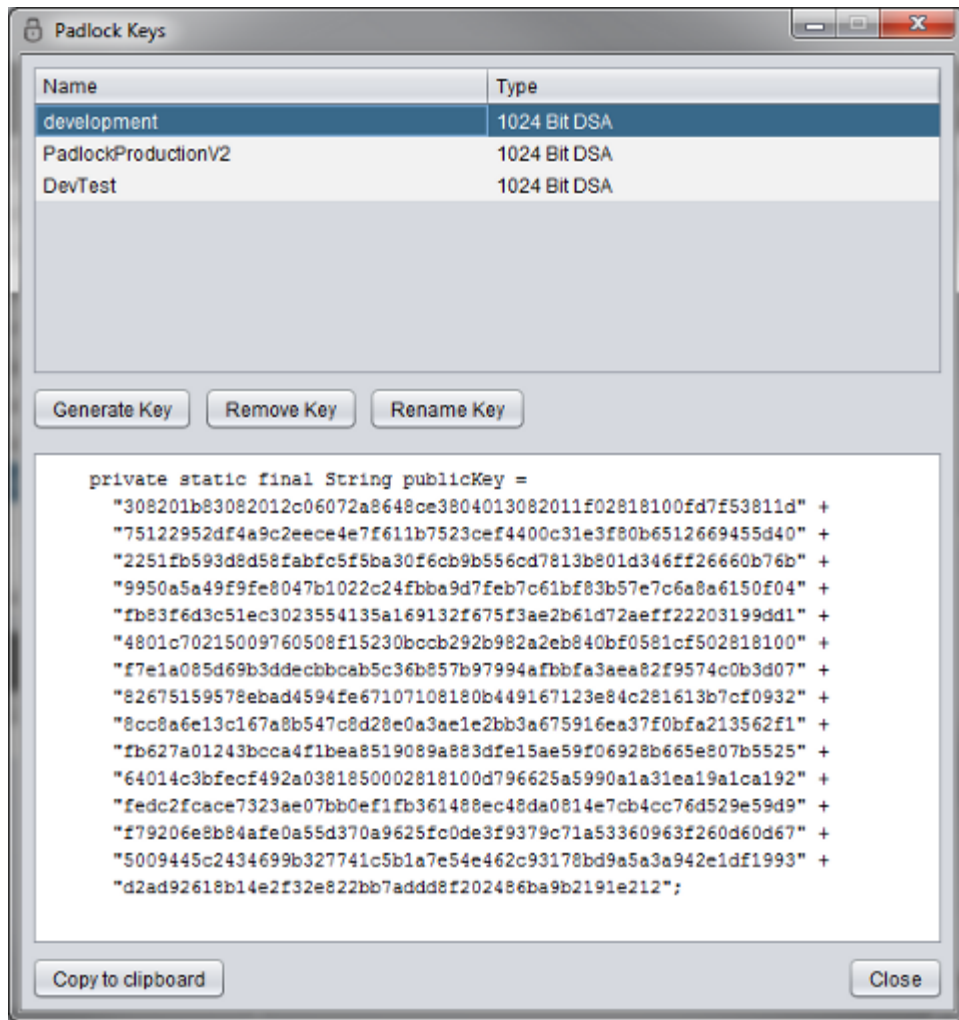
License Properties Panel

The License Properties Panel shows a table of user defined properties that are embedded in the license. These are not used during license validation by default, but either Validator plugins or developer written code can act on the various key/value pairs.

Property	Value
company	Padlock Software LLC
email	jason@padlocksoftware.net
name	Jason Nichols
product_padlock	Padlock License Manager
product_padlock_majorVersion	2
product_padlock_supportLength	10

To add a property, simply double click on the row titled "Add a property". Do the same for the value column and the property key/value pair will automatically be added to the license. Double click on any existing key or value to change it. Properties can be removed from a license by selecting the row and clicking the "Remove Selected" button. Only unsigned licenses can have their properties edited.

Key Manager

The Key Manager dialog is used for the creation, deletion, and removal of the cryptographic keys used to sign and validate Padlock licenses. It's also used by developers to get the public key code used for Padlock integration.

```
private static final String publicKey =
    "308201b83082012c06072a8648ce3804013082011f02818100fd7f53811d" +
    "75122952df4a9c2eece4e7f611b7523cef4400c31e3f80b6512669455d40" +
    "2251fb593d8d58fabfc5f5ba30f6cb9b556cd7813b801d346ff26660b76b" +
    "9950a5a49f9fe8047b1022c24fbba9d7feb7c61bf83b57e7c6a8a6150f04" +
    "fb83f6d3c51ec3023554135a169132f675f3ae2b61d72aeff22203199dd1" +
    "4801c70215009760508f15230bccb292b982a2eb840bf0581cf502818100" +
    "f7e1a085d69b3ddecbbcab5c36b857b97994afbbfa3aea82f9574c0b3d07" +
    "82675159578ebad4594fe67107108180b449167123e84c281613b7cf0932" +
    "8cc8a6e13c167a8b547c8d28e0a3ae1e2bb3a675916ea37f0bfa213562f1" +
    "fb627a01243bcca4f1bea8519089a883dfe15ae59f06928b665e807b5525" +
    "64014c3bfecf492a03818500028181000d796625a5990a1a31ea19a1ca192" +
    "fedc2fcace7323ae07bb0ef1fb361488ec48da0814e7cb4cc76d529e59d9" +
    "f79206e8b84afe0a55d370a9625fc0de3f9379c71a53360963f260d60d67" +
    "5009445c2434699b327741c5b1a7e54e462c93178bd9a5a3a942e1df1993" +
    "d2ad92618b14e2f32e822bb7addd8f202486ba9b2191e212";
```

The Generate, Remove, and Rename buttons above act on the currently selected Key. The code panel shows Java code that should be copy and pasted into the Java application which Padlock is being integrated with.

Template Manager

The Template Manager allows users to easily create licenses that share a common group of base settings and properties. This greatly eases the burden of creating a large number of licenses.
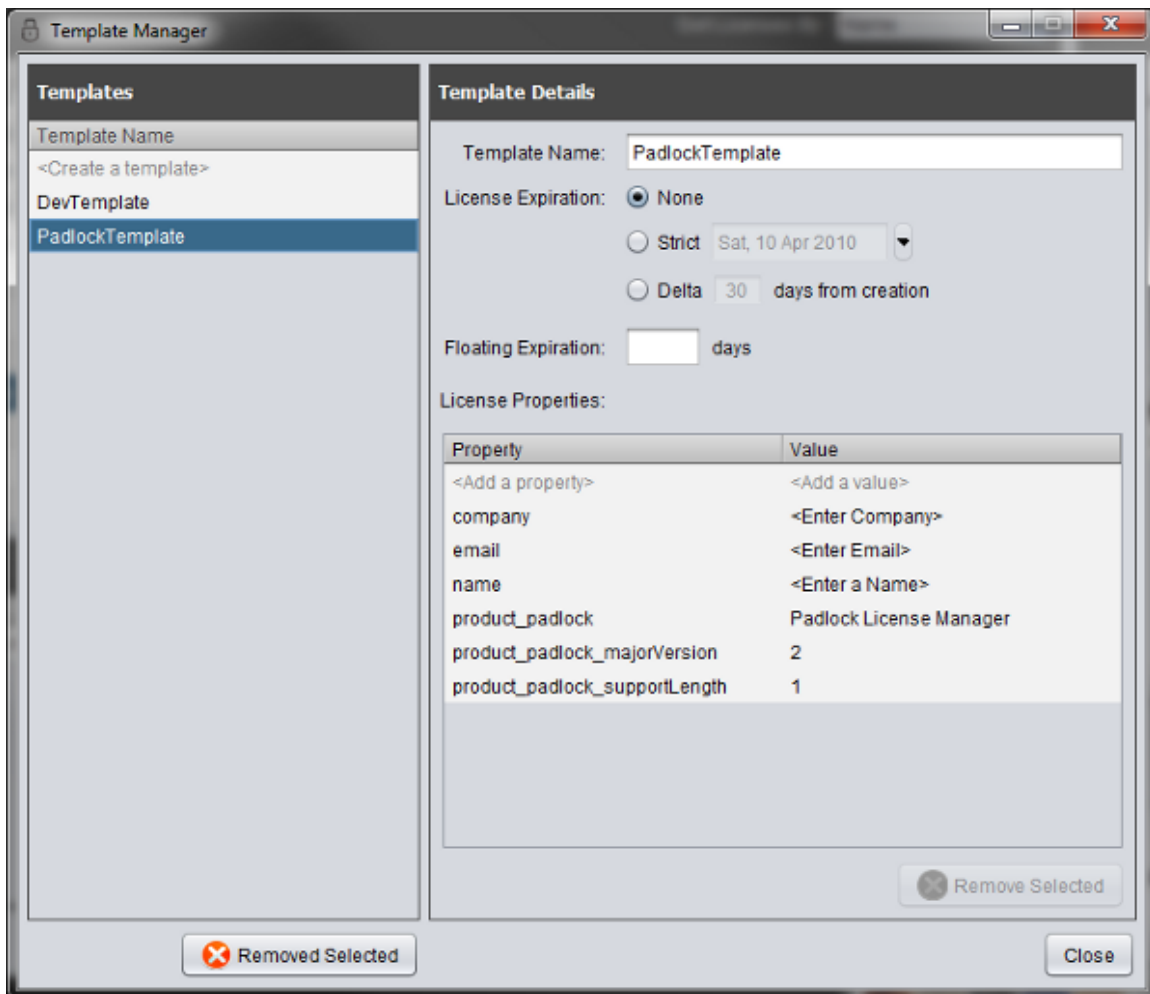
Templates define things such as expiration dates and properties. When a license is generated from a template, it will inherit all the properties assigned in the template. The expiration date is configurable based on one of three settings:

None - The license will not have an expiration date. If using a demo version of Padlock, this setting will be overridden in the generated license.

**Strict** - All licenses generated from this template will have the same expiration date, as set here.

Delta - Licenses generated from this template will have their expiration date set at license creation time. This period will be the umber of days chosen above. This is the option to use when generating a number of "30 day" licenses for example. It does not matter when the user installs and uses the software, since the expiration date is fixed.

It's also possible to set the template's Floating Expiration period, which will set licenses to expire <x> days from the first time they are used on a machine. See the above section on License Details for more information.

Any of these settings may be changed on the license after it is generated. Remember that licenses can be edited until they are signed.

License Import Dialog

The License Import Dialog is used for importing licenses residing on the file system into Padlock Manager.
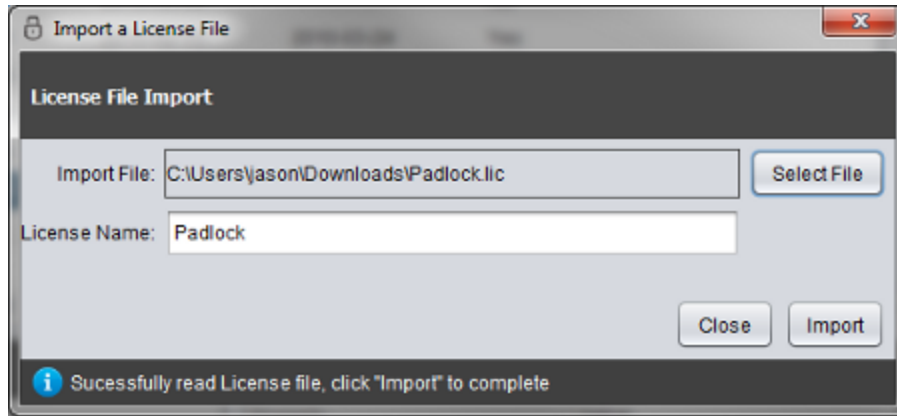
Import licenses will be copied to the local Padlock license folder and will show up in Padlock Manager

License Export Dialog

The License Export Dialog performs the inverse of the Import Dialog, exporting license files from Padlock Manager to the file system location of the user's choice. Multiple files can be exported at once simply by selecting multiple files in the License Tree.

Padlock Manager Preferences Dialog

The Preferences Dialog allows the user to set the filesystem location of the 3 folders used internally by Padlock Manager: The licenses folder, the keys folder, and the templates folder. Once changed Padlock Manager must be restarted for the changes to take effect.
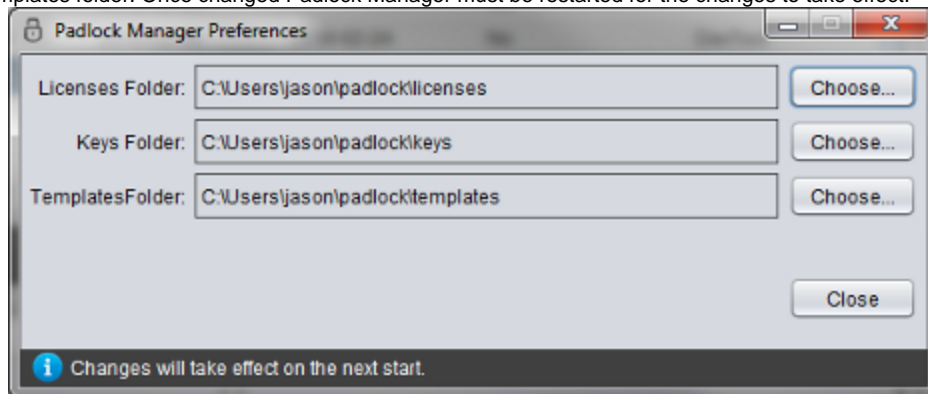
In addition to setting these via the GUI, it's also possible to set them from the console when the application is launched. Simply set one or all of the following Java properties to point to their respective folders:

-Dnet.padlocksoftware.keypath=<keyPath>
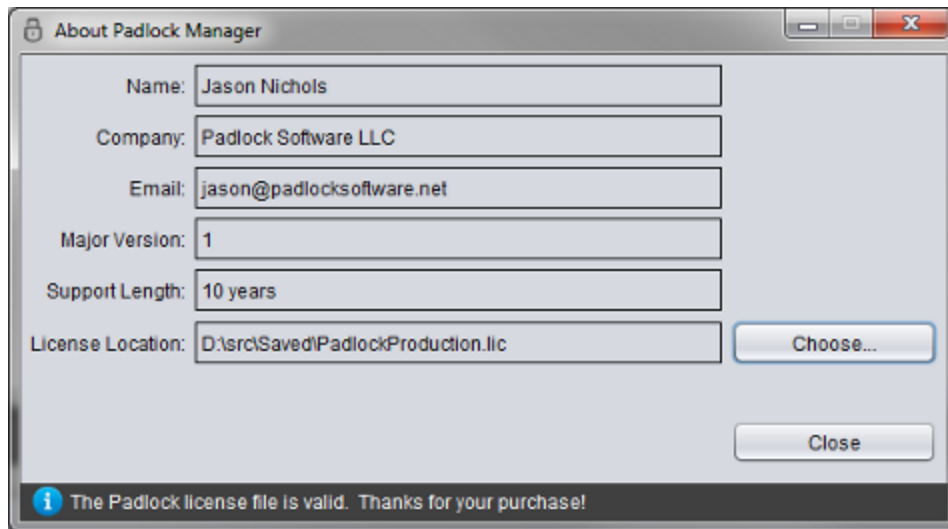
-Dnet.padlocksoftware.licensepath=<licensePath>

-Dnet.padlocksoftware.templatepath=<templatePath>

These will override any saves path settings for the duration of the application.

Padlock Manager About Dialog

The About Dialog allows the user to select the Padlock license file which will enable the full functionality in Padlock. The dialog also shows license information.

When choosing a Padlock license, Padlock Manager will not copy the license from its location on the filesystem, but will remember the location when running in the future. If for any reason the license is not valid, Padlock will show a reason on the status bar on the bottom of the dialog.

Conclusion

This completes the overview of Padlock Manager in Padlock 2.0. If you have any questions or issues, please email support@padlocksoftware.net.