

Manage Third Party Applications with Profiles

Manage Third Party Applications with Profiles





B*TTCHES!

of



and Chickens



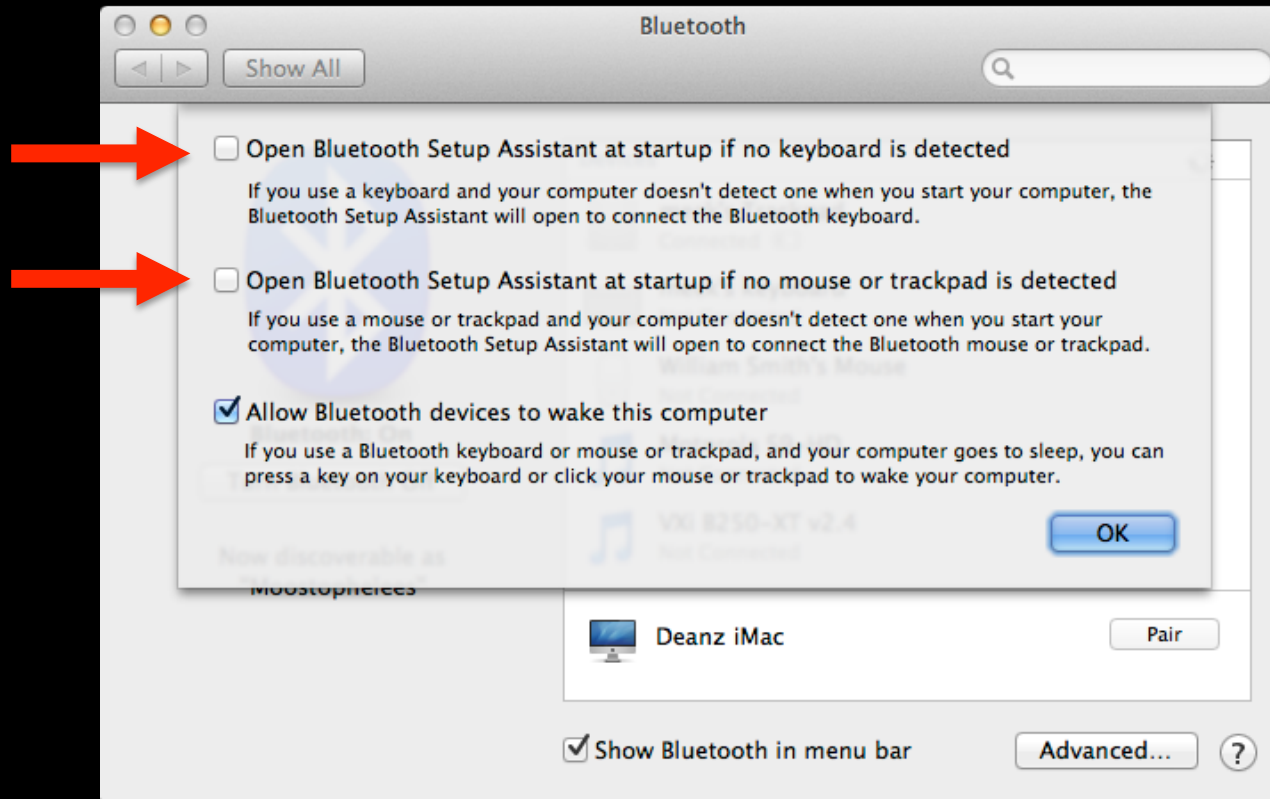


Plist

- ☐ What does it do?
- ☐ Where do we find it?
- ☐ What's in it?
- ☐ How do we manage it?

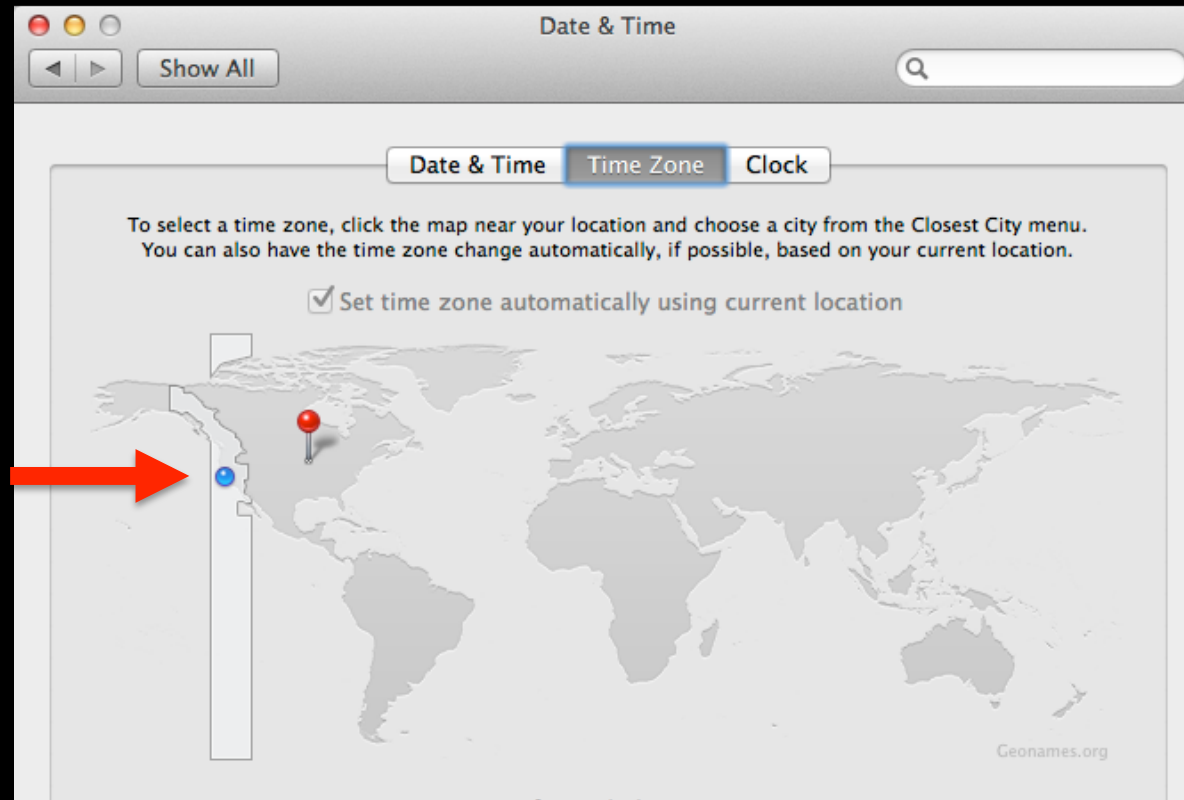


Plist: What does it do?



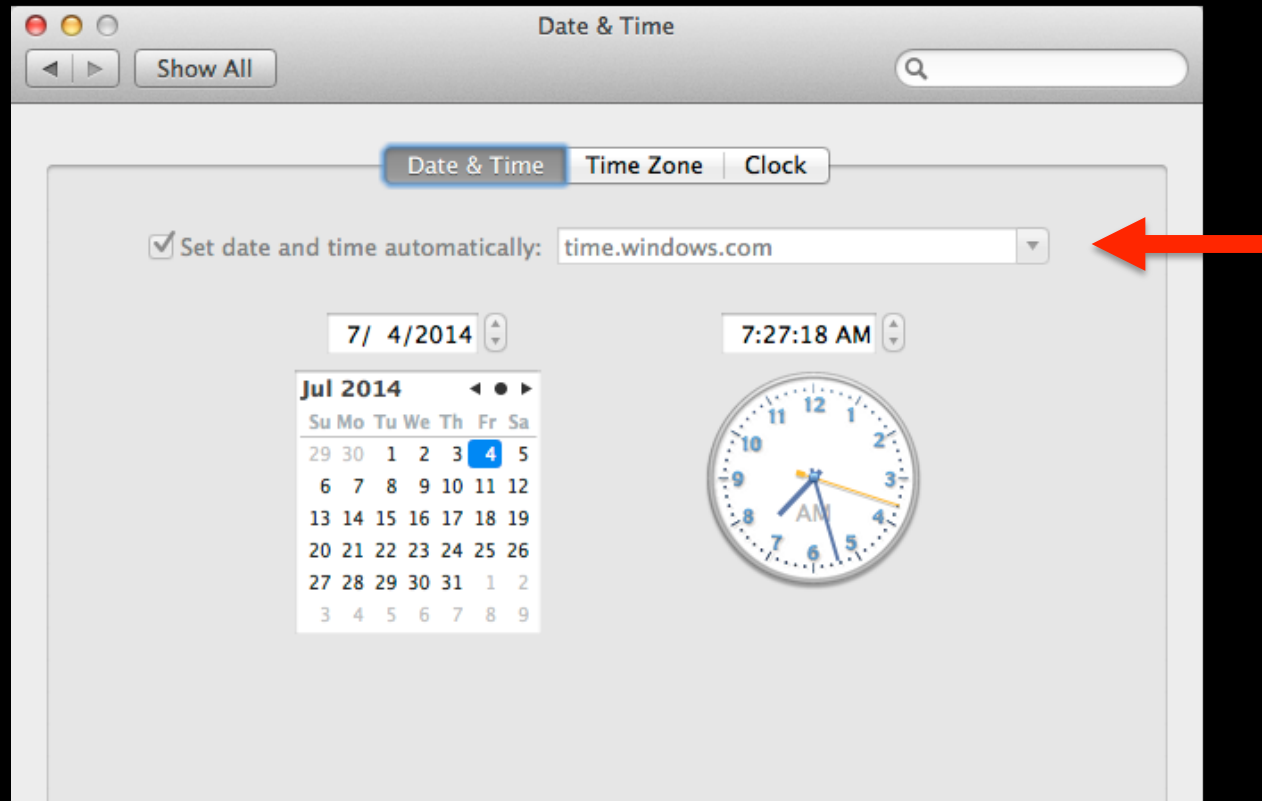
Configure devices

Plist: What does it do?



Customize settings

Plist: What does it do?



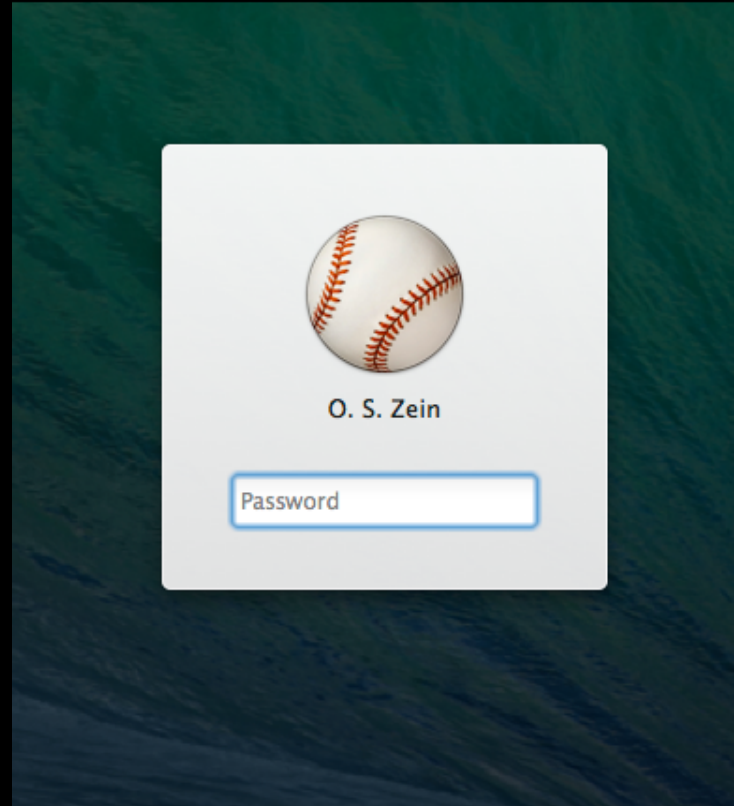
Customize settings

Plist: What does it do?



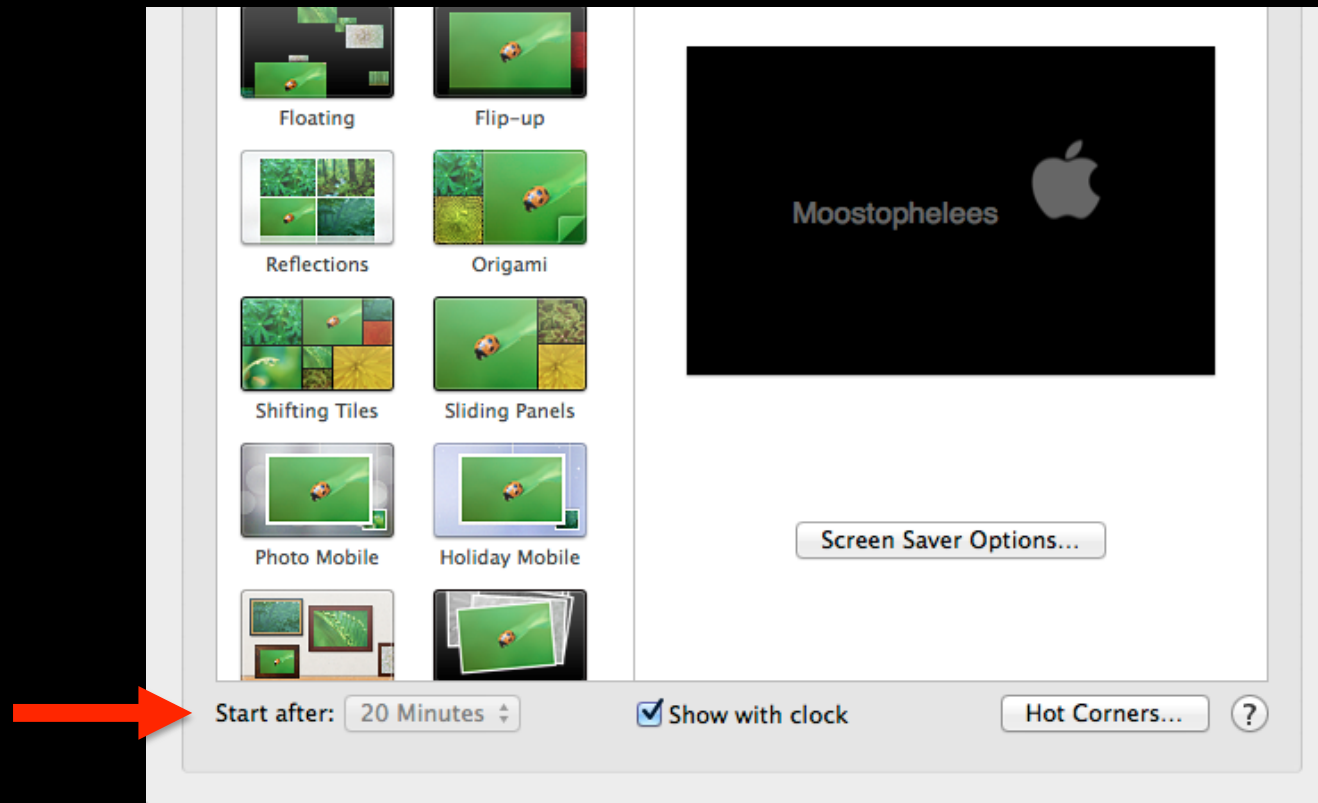
Enforce preferences

Plist: What does it do?



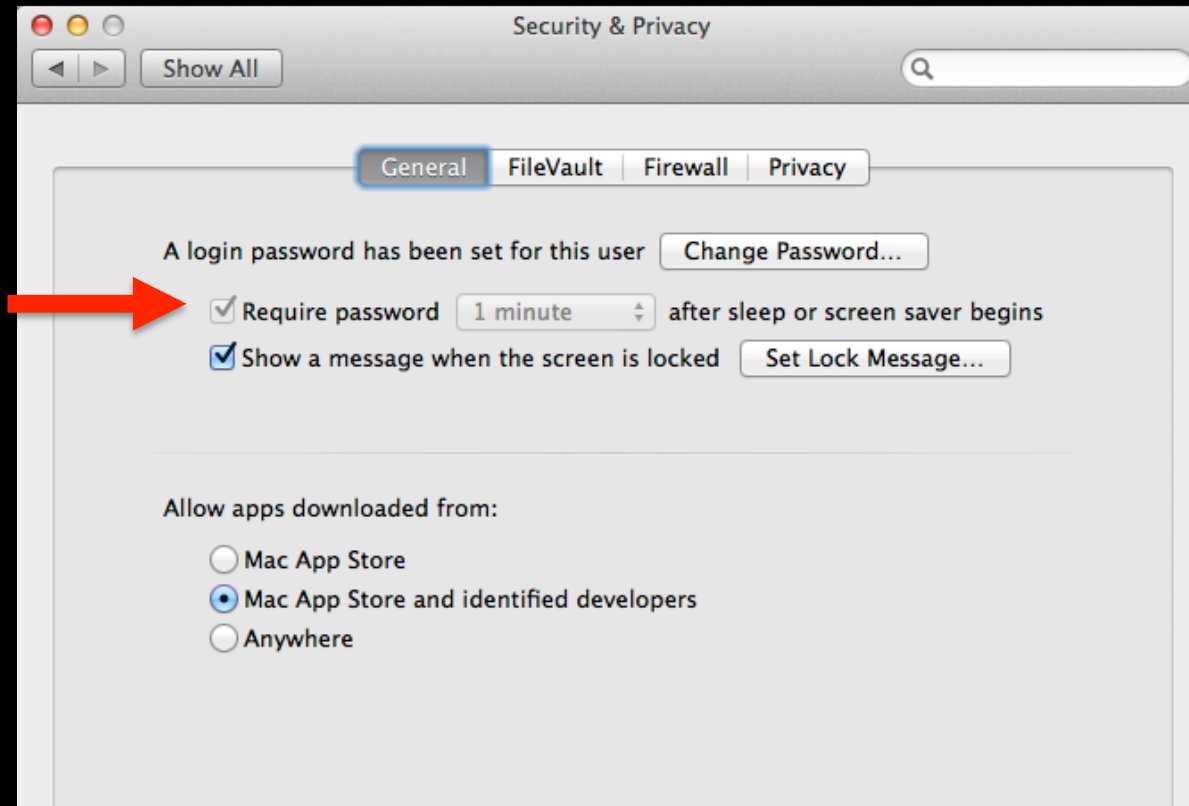
Enforce security

Plist: What does it do?



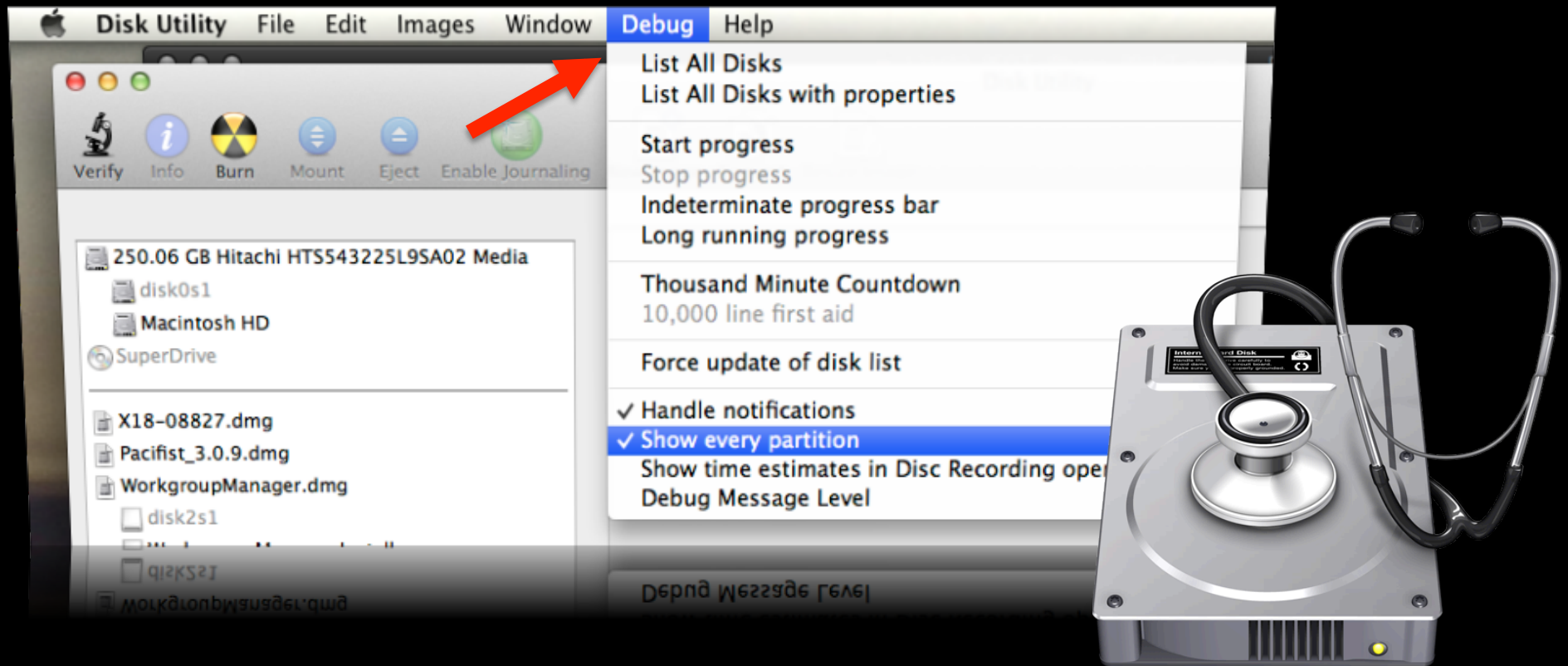
Enforce security

Plist: What does it do?



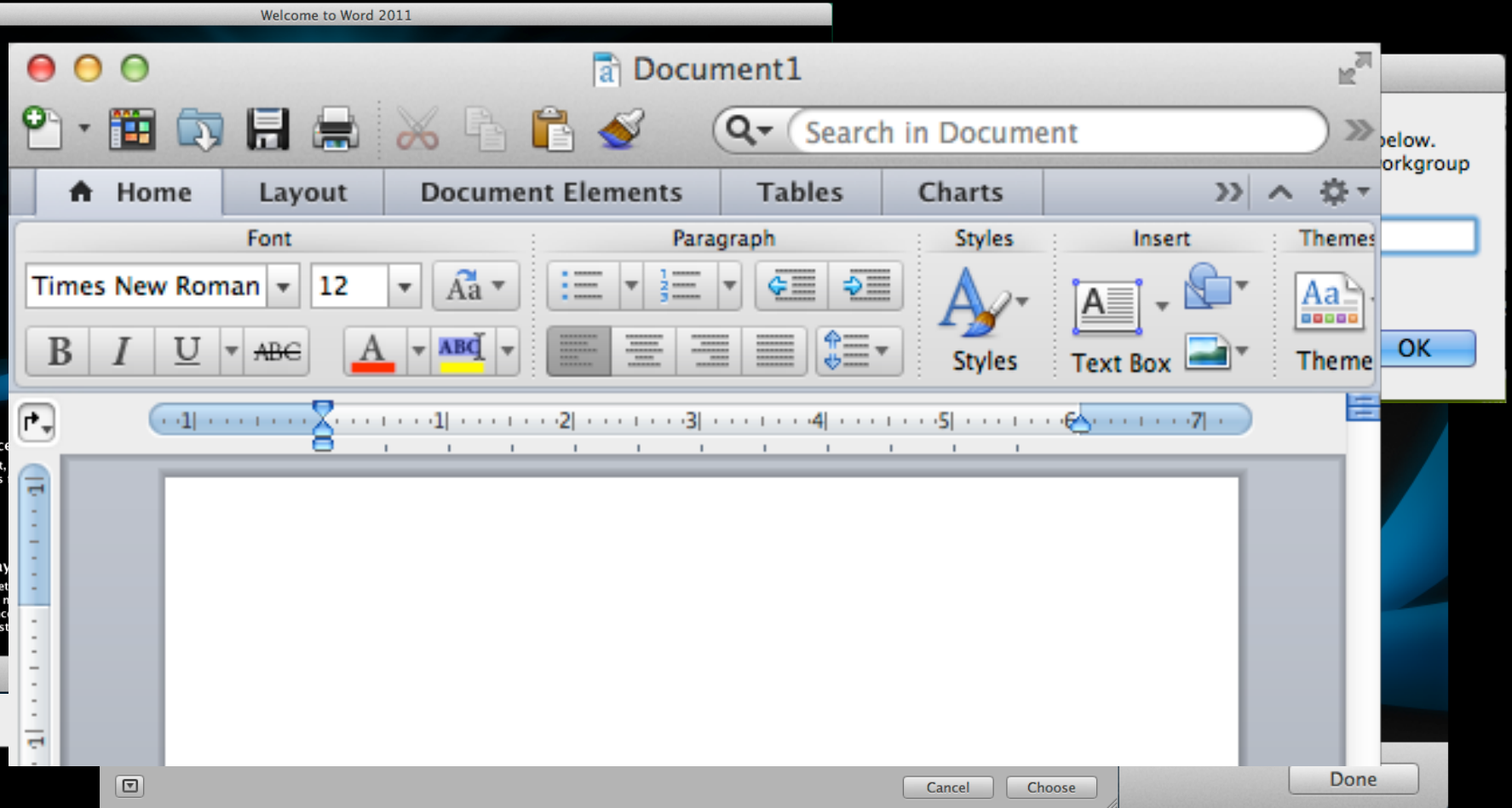
Enforce security

Plist: What does it do?



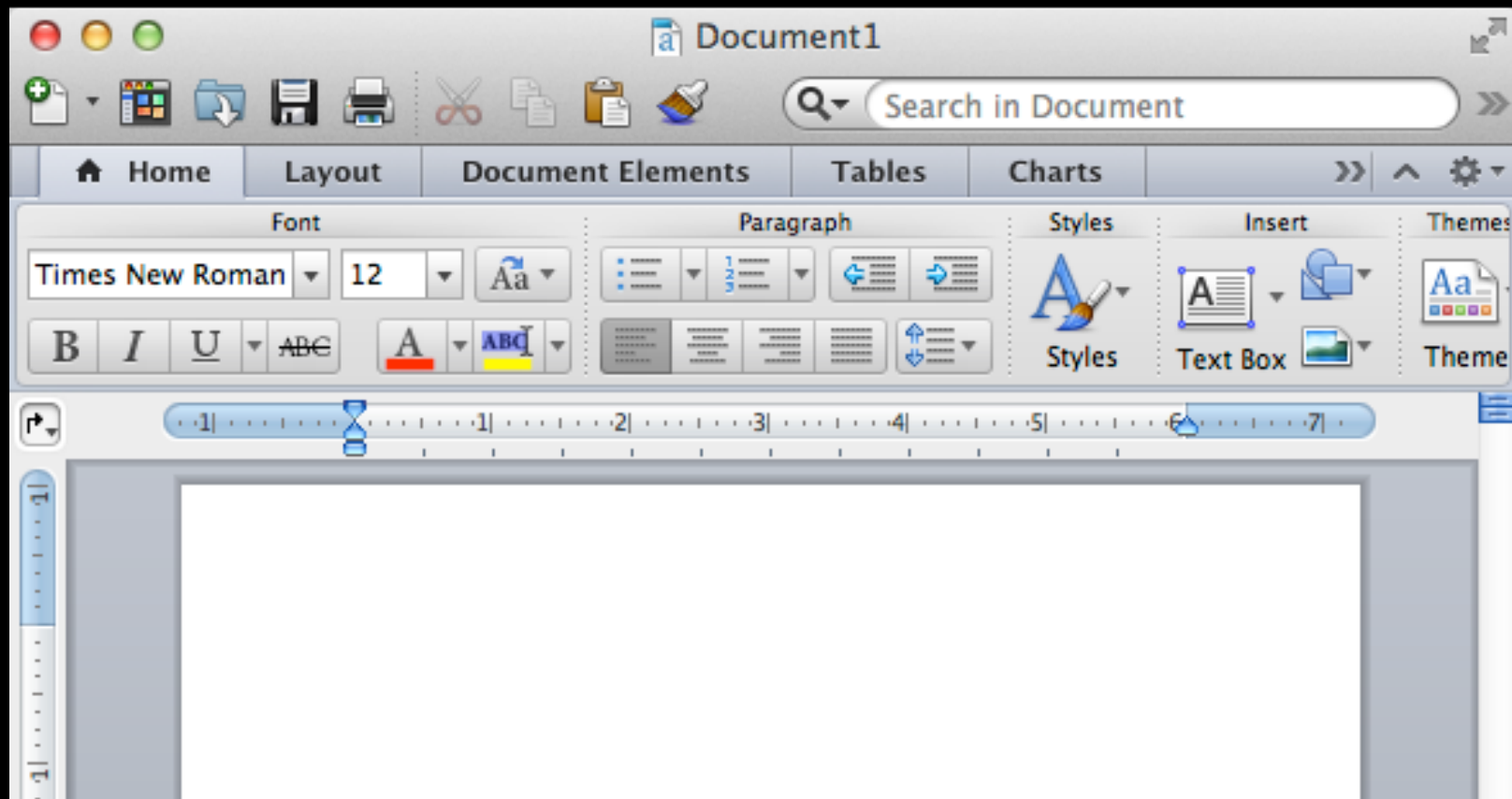
Reveal hidden features

Plist: What does it do?



Improve user experience

Plist: What does it do?



Improve user experience

Plist: What does it do?

Configure devices

Customize settings

Enforce preferences

Enforce security

Reveal hidden features

Improve user experience

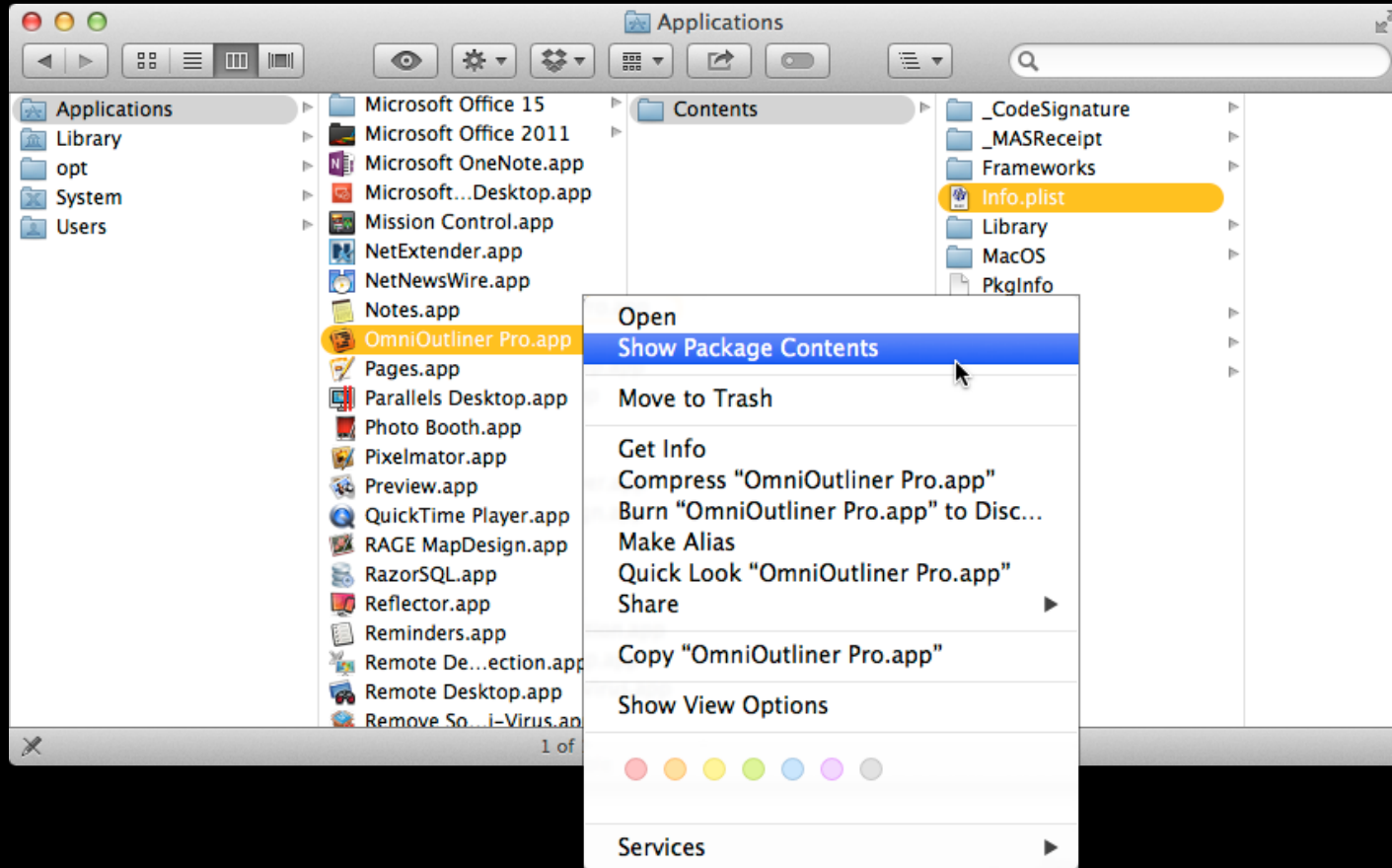


Plist

- ☒ What does it do?
- ☐ Where do we find it?
- ☐ What's in it?
- ☐ How do we manage it?

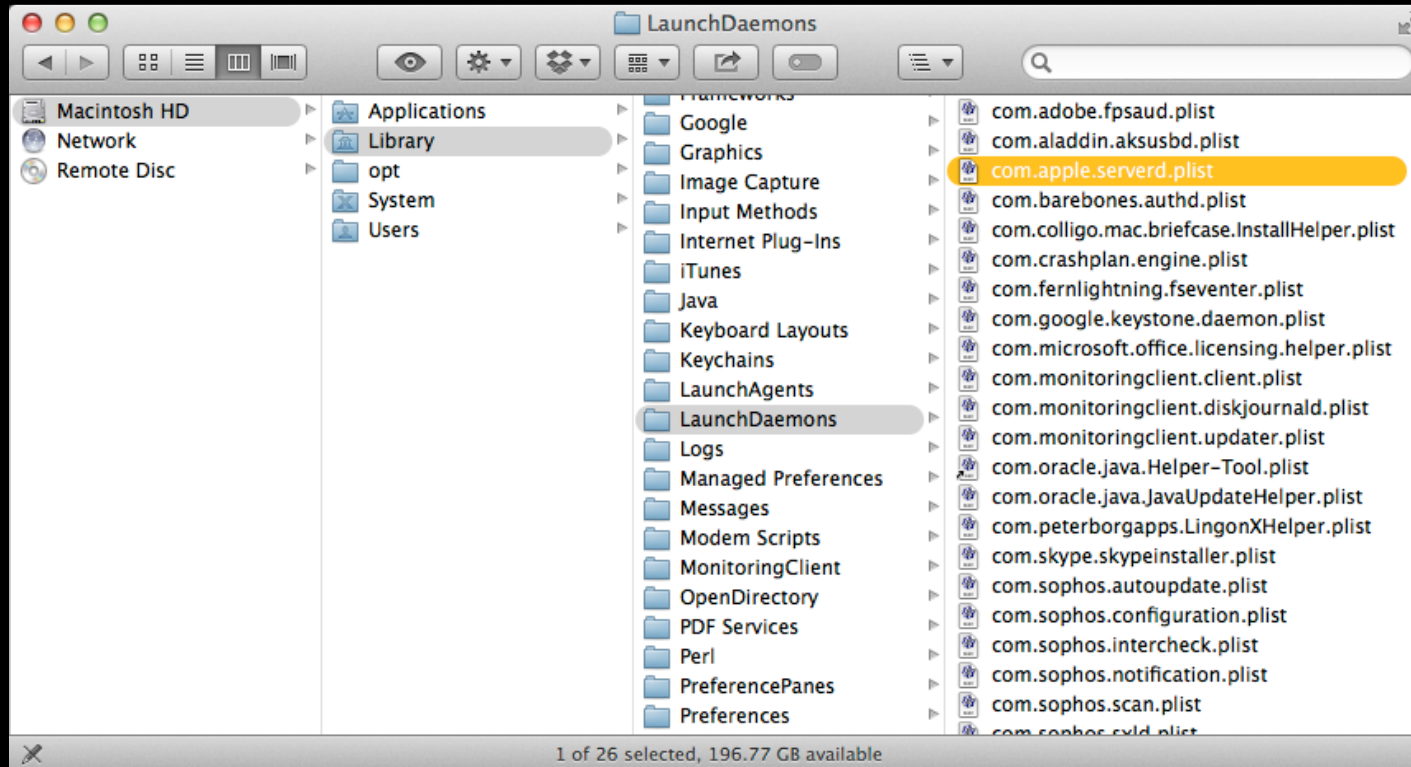


Plist: Where do we find it?



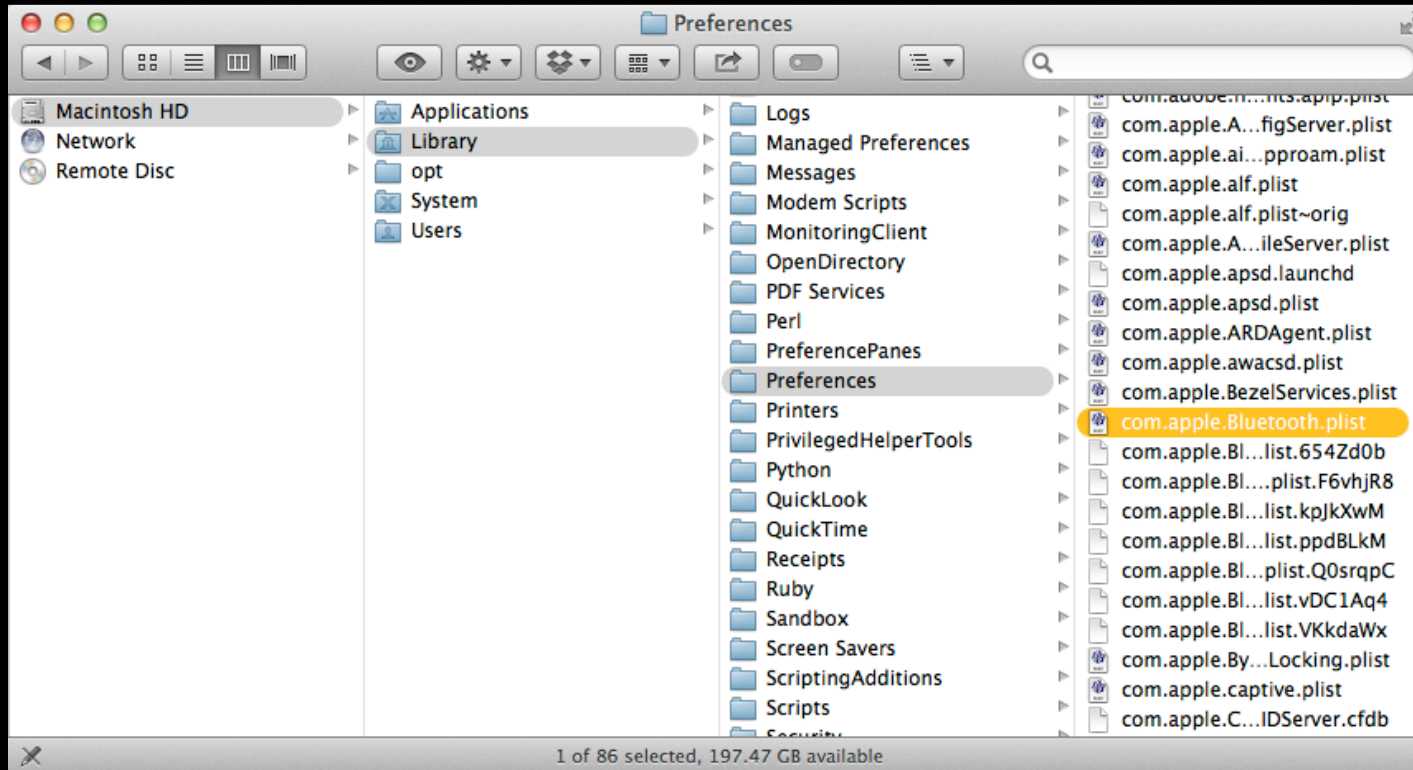
Application bundles

Plist: Where do we find it?



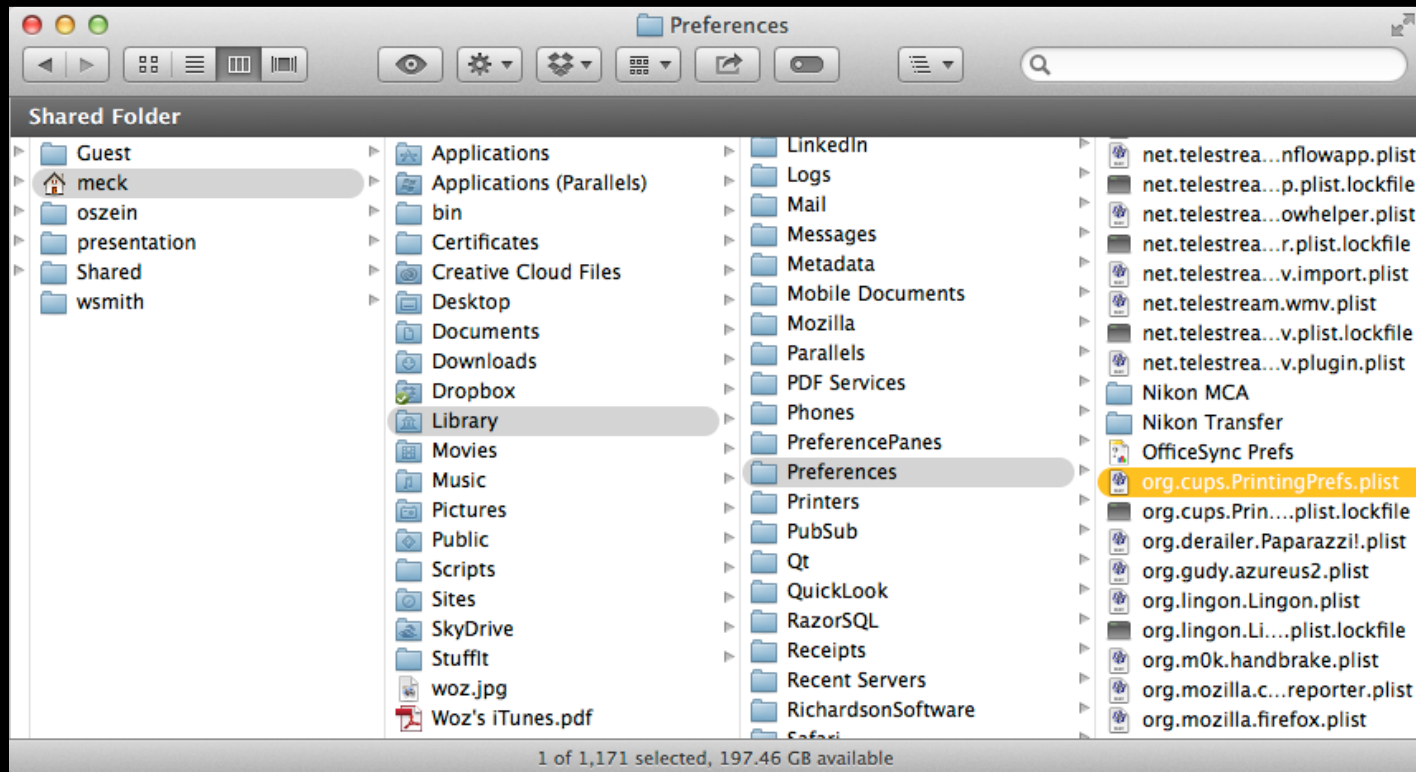
Launchd

Plist: Where do we find it?



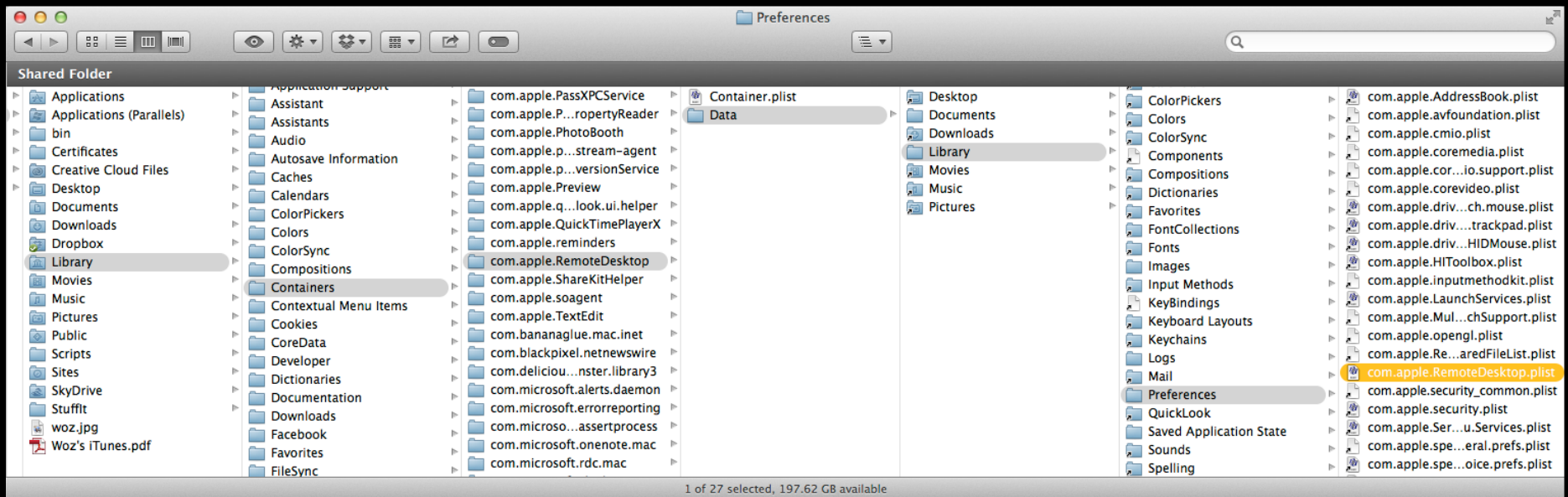
/Library/Preferences

Plist: Where do we find it?



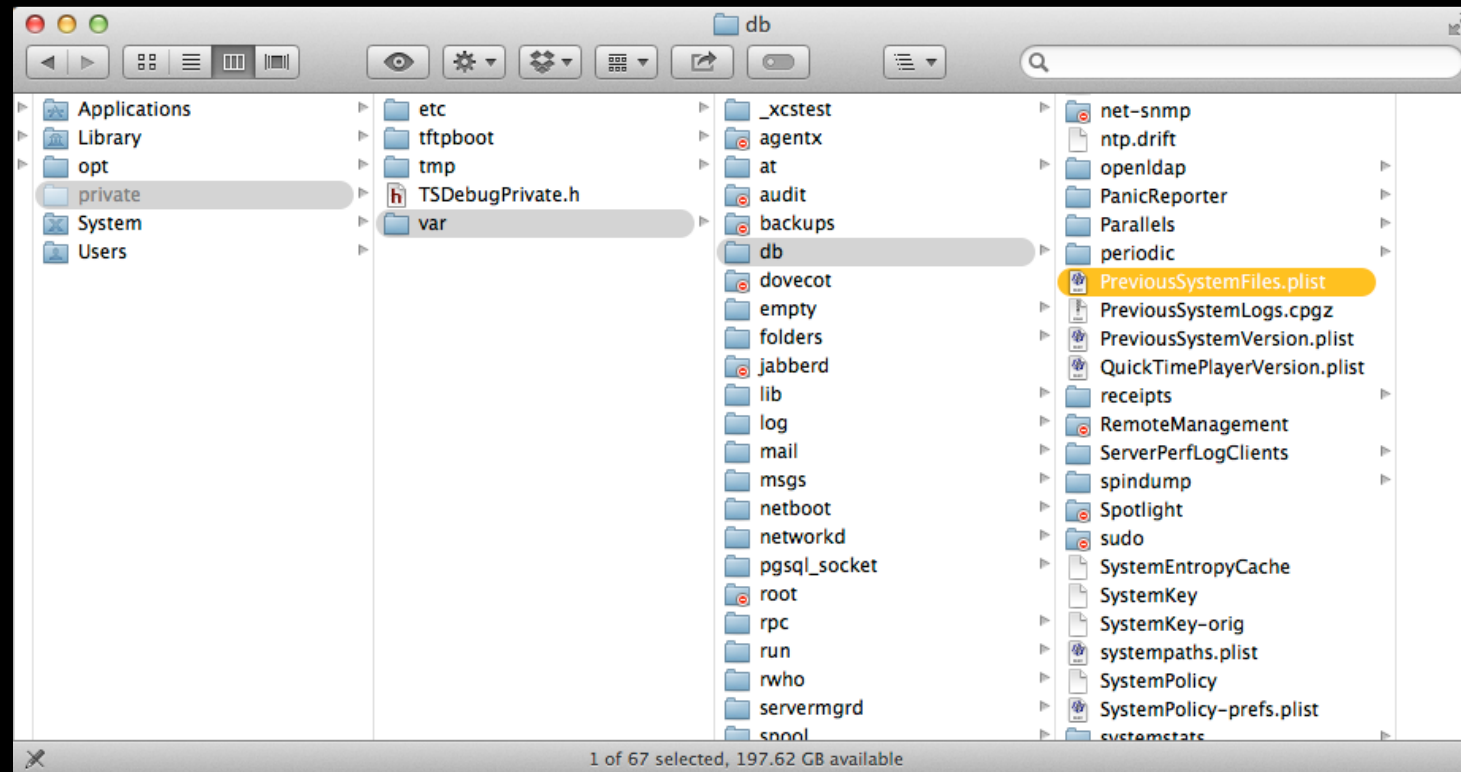
~/Library/Preferences

Plist: Where do we find it?



~/Library/Containers

Plist: Where do we find it?



Hidden folders

Plist: Where do we find it?

Application bundles

Launchd

/Library/Preferences

~/Library/Preferences

~/Library/Containers

Hidden folders

Plist: Where do we find it?

Application bundles

Launchd

/Library/Preferences

~/Library/Preferences

~/Library/Containers

Hidden folders



Plist

- ☒ What does it do?
- ☒ Where do we find it?
- ☐ What's in it?
- ☐ How do we manage it?



Plist: What's in it?

```
com.apple.finder.plist
```

Name

Plist: What's in it?

`com.apple.finder.plist`

Name

Plist: What's in it?

com.apple.finder.plist

Name

Plist: What's in it?

com.apple.finder.plist

Name

Plist: What's in it?

com.apple.finder.plist

Name

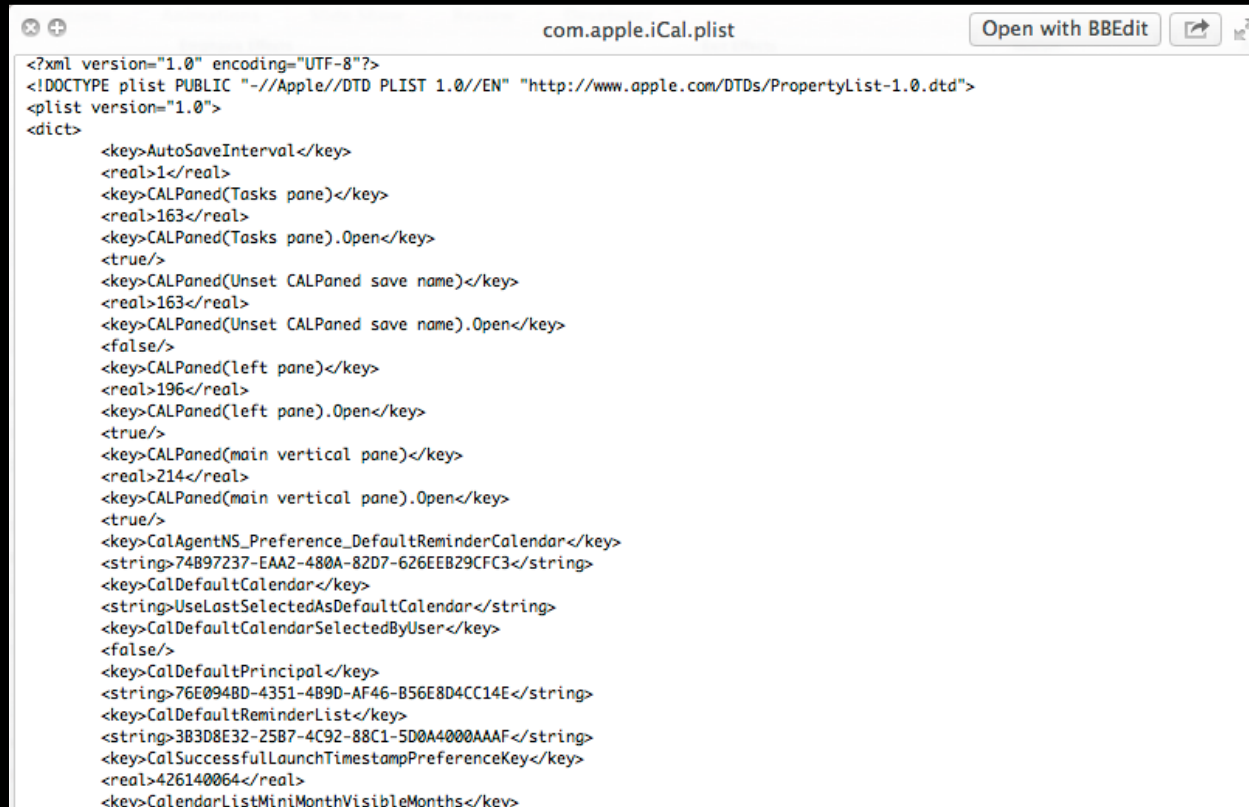
Plist: What's in it?

```
com.apple.iCal.plist
plist00AG

! "$%&'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLMHRSURWXZH\]^_`ajRlHropqHstuHwxyzäääçHèëëHìîRñóúRûRç
£$B@HR'H×AUH∞_TimeZone support enabled_&NSWindow Frame
SimpleCalendarInspector_)CalSuccessfulLaunchTimestampPreferenceKey_!
NSNavPanelExpandedSizeForOpenMode_Disable all alarms_BNSSplitView Subview Frames Calendar To Do List
Vertical Split View_On My Mac Expanded_Show Week Numbers_syncingDisabled_NSColorPanelMode^Other
Expanded_"CalendarListMiniMonthVisibleMonths_Delegates
Expanded_&NSNavBrowserPreferredColumnContentWidth_CALPaned(left
pane)_WR_DONT_ASK_FOR_DEFAULT_"CALPaned(Unset CALPaned save name)_!CALPaned(main vertical
pane).Open_"NSEventConcurrentProcessingEnabled_CalDefaultCalendar_<NSSplitView Subview Frames
Calendar List Vertical Split View_NSTableView Columns SearchView_%NSWindow Frame
NSNavPanelAutosaveName_ CalDefaultCalendarSelectedByUser_NSDontMakeMainWindowKey_Show time in Month
View_'CALPaned(Unset CALPaned save name).Open_&NSWindow Frame ServerCalendarInspector_,NSWindow
Frame SubscriptionCalendarInspector_last calendar view
description_#UserHasRemovedMobileMeCalDAVAccount_%NSTableView Hidden Columns
SearchView_CalDefaultPrincipal_NSNavSidebarWidth_Show heat map in Year View_NSWindow Frame
NSColorPanel_NSNavLastRootDirectory_NSWindow Frame iCalZview rects_CalDefaultReminderList_last
minute of day time range_mNSWindow Frame 0:FAF4B87A-9C5C-408B-82A6-565BC91EACD7/BAC4817E-26D4-49C6-
AB59-1B2BFA6182B2/20121017T143000Z/-_Swap view name to display_DisableEmphasizedViews_delete todos
after_dNSWindow Frame 0:90359654-E60A-459C-8BA6-CF4339D115BF/local_588F1893-C1C2-4B05-9051-
ECD4D1EEF793/-/-\iCal version_CALPaned(left pane).Open_lastViewsTimeZone_!
NSNavPanelExpandedSizeForSaveMode_RetargetableOpenKey_first minute of day time range_$NSTableView
Sort Ordering SearchView_CALPaned(main vertical pane)_CalendarSidebarShown_ PersistentMenu-
JustUseTimezone_delete todos_First show window of day_NSWindow Frame
```

View

Plist: What's in it?

A screenshot of a text editor window displaying the contents of a plist file named 'com.apple.iCal.plist'. The window has a title bar with standard macOS window controls and a button labeled 'Open with BBEdit'. The text inside is XML-formatted plist data. It starts with an XML declaration, a DOCTYPE declaration for a public plist, and a root element 'plist' containing a 'dict' of key-value pairs. The keys include 'AutoSaveInterval' (value 1), 'CALPaned(Tasks pane)' (value 163), 'CALPaned(Tasks pane).Open' (value true), 'CALPaned(Unset CALPaned save name)' (value 163), 'CALPaned(Unset CALPaned save name).Open' (value false), 'CALPaned(left pane)' (value 196), 'CALPaned(left pane).Open' (value true), 'CALPaned(main vertical pane)' (value 214), 'CALPaned(main vertical pane).Open' (value true), 'CalAgentNS_Preference_DefaultReminderCalendar' (value a UUID string), 'CalDefaultCalendar' (value false), 'UseLastSelectedAsDefaultCalendar' (value false), 'CalDefaultPrincipal' (value a UUID string), 'CalDefaultReminderList' (value a UUID string), 'CalSuccessfulLaunchTimestampPreferenceKey' (value 426140064), and 'CalendarListMiniMonthVisibleMonths' (value not shown).

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE plist PUBLIC "-//Apple//DTD PLIST 1.0//EN" "http://www.apple.com/DTDs/PropertyList-1.0.dtd">
<plist version="1.0">
<dict>
  <key>AutoSaveInterval</key>
  <real>1</real>
  <key>CALPaned(Tasks pane)</key>
  <real>163</real>
  <key>CALPaned(Tasks pane).Open</key>
  <true/>
  <key>CALPaned(Unset CALPaned save name)</key>
  <real>163</real>
  <key>CALPaned(Unset CALPaned save name).Open</key>
  <false/>
  <key>CALPaned(left pane)</key>
  <real>196</real>
  <key>CALPaned(left pane).Open</key>
  <true/>
  <key>CALPaned(main vertical pane)</key>
  <real>214</real>
  <key>CALPaned(main vertical pane).Open</key>
  <true/>
  <key>CalAgentNS_Preference_DefaultReminderCalendar</key>
  <string>74B97237-EAA2-480A-82D7-626EEB29CFC3</string>
  <key>CalDefaultCalendar</key>
  <string>UseLastSelectedAsDefaultCalendar</string>
  <key>CalDefaultCalendarSelectedByUser</key>
  <false/>
  <key>CalDefaultPrincipal</key>
  <string>76E0948D-4351-4B9D-AF46-B56E8D4CC14E</string>
  <key>CalDefaultReminderList</key>
  <string>3B3D8E32-25B7-4C92-88C1-5D0A4000AAAF</string>
  <key>CalSuccessfulLaunchTimestampPreferenceKey</key>
  <real>426140064</real>
  <key>CalendarListMiniMonthVisibleMonths</key>
```

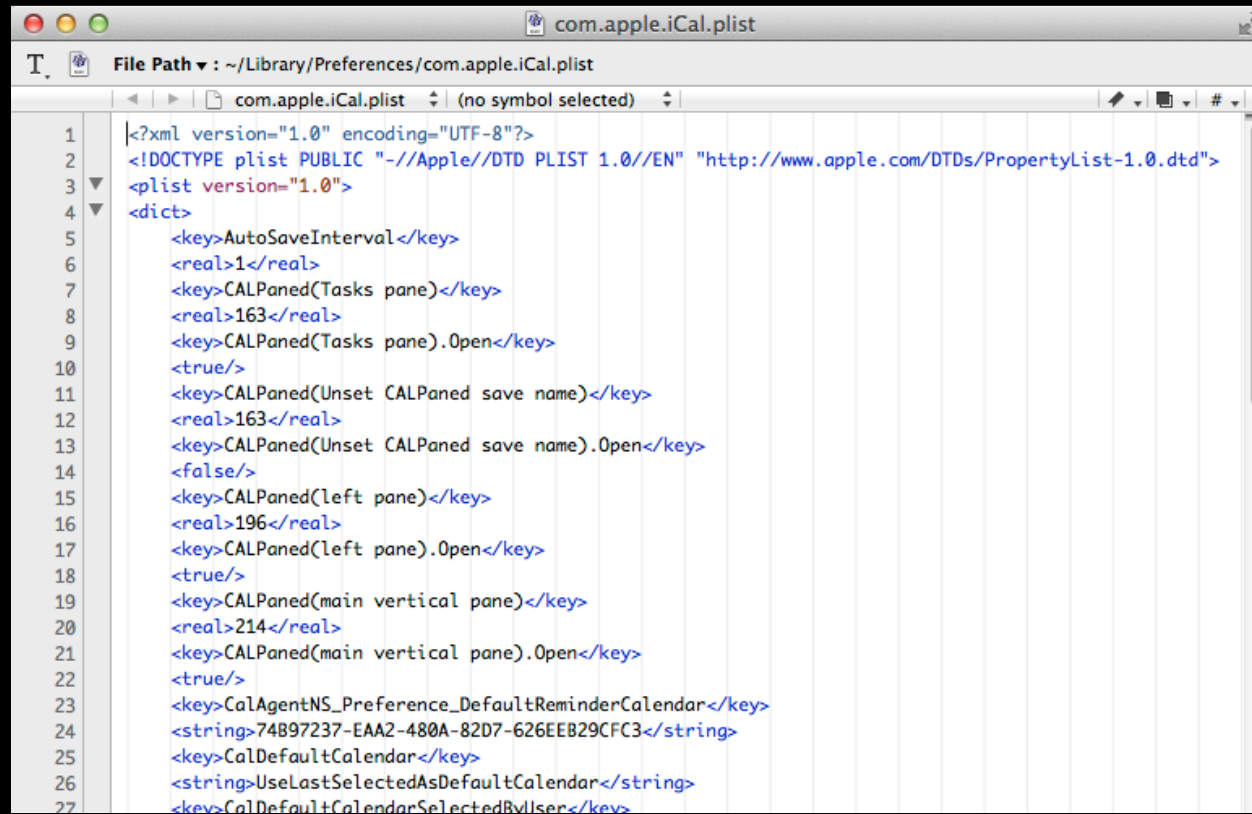
View

Plist: What's in it?

```
plutil -convert xml1 \  
/path/to/com.domain.file.plist
```

View

Plist: What's in it?

A screenshot of a text editor window titled 'com.apple.iCal.plist'. The window shows the XML structure of a plist file. The file path is '~/.Library/Preferences/com.apple.iCal.plist'. The XML content is as follows:

```
1 <?xml version="1.0" encoding="UTF-8"?>
2 <!DOCTYPE plist PUBLIC "-//Apple//DTD PLIST 1.0//EN" "http://www.apple.com/DTDs/PropertyList-1.0.dtd">
3 <plist version="1.0">
4   <dict>
5     <key>AutoSaveInterval</key>
6     <real>1</real>
7     <key>CALPaned(Tasks pane)</key>
8     <real>163</real>
9     <key>CALPaned(Tasks pane).Open</key>
10    <true/>
11    <key>CALPaned(Unset CALPaned save name)</key>
12    <real>163</real>
13    <key>CALPaned(Unset CALPaned save name).Open</key>
14    <false/>
15    <key>CALPaned(left pane)</key>
16    <real>196</real>
17    <key>CALPaned(left pane).Open</key>
18    <true/>
19    <key>CALPaned(main vertical pane)</key>
20    <real>214</real>
21    <key>CALPaned(main vertical pane).Open</key>
22    <true/>
23    <key>CalAgentNS_Preference_DefaultReminderCalendar</key>
24    <string>74B97237-EAA2-480A-82D7-626EEB29CFC3</string>
25    <key>CalDefaultCalendar</key>
26    <string>UseLastSelectedAsDefaultCalendar</string>
27    <key>CalDefaultCalendarSelectedByUser</key>
```

View

Plist: What's in it?



It (still) doesn't suck.



Free!

<http://www.barebones.com>

View

Plist: What's in it?

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE plist PUBLIC "-//Apple//DTD PLIST 1.0//EN" "http://
www.apple.com/DTDs/PropertyList-1.0.dtd">
<plist version="1.0">
<dict>
  <key>ratingSystemID</key>
  <integer>1</integer>
  <key>restrictExplicit</key>
  <false/>
  <key>restrictExplicitBooks</key>
  <false/>
  <key>restrictGames</key>
  <false/>
  <key>restrictMovies</key>
  <false/>
  <key>restrictTVShows</key>
  <false/>
</dict>
</plist>
```

com.apple.iTunes

Plist: What's in it?

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE plist PUBLIC "-//Apple//DTD PLIST 1.0//EN" "http://
www.apple.com/DTDs/PropertyList-1.0.dtd">
<plist version="1.0">
<dict>
  <key>ratingSystemID</key>
  <integer>1</integer>
  <key>restrictExplicit</key>
  <false/>
  <key>restrictExplicitBooks</key>
  <false/>
  <key>restrictGames</key>
  <false/>
  <key>restrictMovies</key>
  <false/>
  <key>restrictTVShows</key>
  <false/>
</dict>
</plist>
```

com.apple.iTunes

Plist: What's in it?

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE plist PUBLIC "-//Apple//DTD PLIST 1.0//EN" "http://
www.apple.com/DTDs/PropertyList-1.0.dtd">
<plist version="1.0">
<dict>
  <key>ratingSystemID</key>
  <integer>1</integer>
  <key>restrictExplicit</key>
  <false/>
  <key>restrictExplicitBooks</key>
  <false/>
  <key>restrictGames</key>
  <false/>
  <key>restrictMovies</key>
  <false/>
  <key>restrictTVShows</key>
  <false/>
</dict>
</plist>
```

com.apple.iTunes

Plist: What's in it?

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE plist PUBLIC "-//Apple//DTD PLIST 1.0//EN" "http://
www.apple.com/DTDs/PropertyList-1.0.dtd">
<plist version="1.0">
<dict>
  <key>ratingSystemID</key>
  <integer>1</integer>
  <key>restrictExplicit</key>
  <false/>
  <key>restrictExplicitBooks</key>
  <false/>
  <key>restrictGames</key>
  <false/>
  <key>restrictMovies</key>
  <false/>
  <key>restrictTVShows</key>
  <false/>
</dict>
</plist>
```

com.apple.iTunes

Plist: What's in it?

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE plist PUBLIC "-//Apple//DTD PLIST 1.0//EN" "http://
www.apple.com/DTDs/PropertyList-1.0.dtd">
<plist version="1.0">
<dict>
  <key>ratingSystemID</key>
  <integer>1</integer>
  <key>restrictExplicit</key>
  <false/>
  <key>restrictExplicitBooks</key>
  <false/>
  <key>restrictGames</key>
  <false/>
  <key>restrictMovies</key>
  <false/>
  <key>restrictTVShows</key>
  <false/>
</dict>
</plist>
```

com.apple.iTunes

Plist: What's in it?

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE plist PUBLIC "-//Apple//DTD PLIST 1.0//EN" "http://
www.apple.com/DTDs/PropertyList-1.0.dtd">
<plist version="1.0">
<dict>
    <key>ratingSystemID</key>          }
    <integer>1</integer>                }
    <key>restrictExplicit</key>        }
    <false/>                            }
    <key>restrictExplicitBooks</key>   }
    <false/>                            }
    <key>restrictGames</key>           }
    <false/>                            }
    <key>restrictMovies</key>          }
    <false/>                            }
    <key>restrictTVShows</key>         }
    <false/>                            }
</dict>
</plist>
```

com.apple.iTunes

Plist: What's in it?

```
<key>restrictMovies</key>  
<false/>
```

com.apple.iTunes

Plist: What's in it?

```
<key>lastSyncDate</key>  
<date>2012-09-15T14:58:09Z</  
date>
```

com.apple.iTunes

Plist: What's in it?

```
<key>gamesLimit</key>  
<integer>300</integer>
```

com.apple.iTunes

Plist: What's in it?

```
<key>NSNavSidebarWidth</key>  
<real>117</real>
```

com.apple.iTunes

Plist: What's in it?

```
<key>Store Apple ID</key>  
<string>joe@mac.com</string>
```

com.apple.iTunes

Plist: What's in it?

```
<key>PPr2:1:Music Store</key>  
<data>AJAAVwLsBIABxgAAAAAAAAAGQA  
QAABgAAAAAAAAQAALwAAAAAAAAAAAA  
AAAAAAAAAAAAAAAAAAAAAAAAAIBAAEAAasAAAA  
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAANAQEBAA  
A7AAAAAAAAAAAAAAAAAAAA</data>
```

com.apple.iTunes

Plist: What's in it?

```
<key>Stations</key>  
<array>  
  <string>WKRP</string>  
  <string>KNOW</string>  
  <string>KATT</string>  
</array>
```

com.apple.iTunes

Plist: What's in it?



***Always two
there are:
A key and
a value.***



Plist

- ☒ What does it do?
- ☒ Where do we find it?
- ☒ What's in it?
- ☐ How do we manage it?



Plist: How do we manage it?

Applications must use plists

/Library/Preferences

~/Library/Preferences

~/Library/Containers

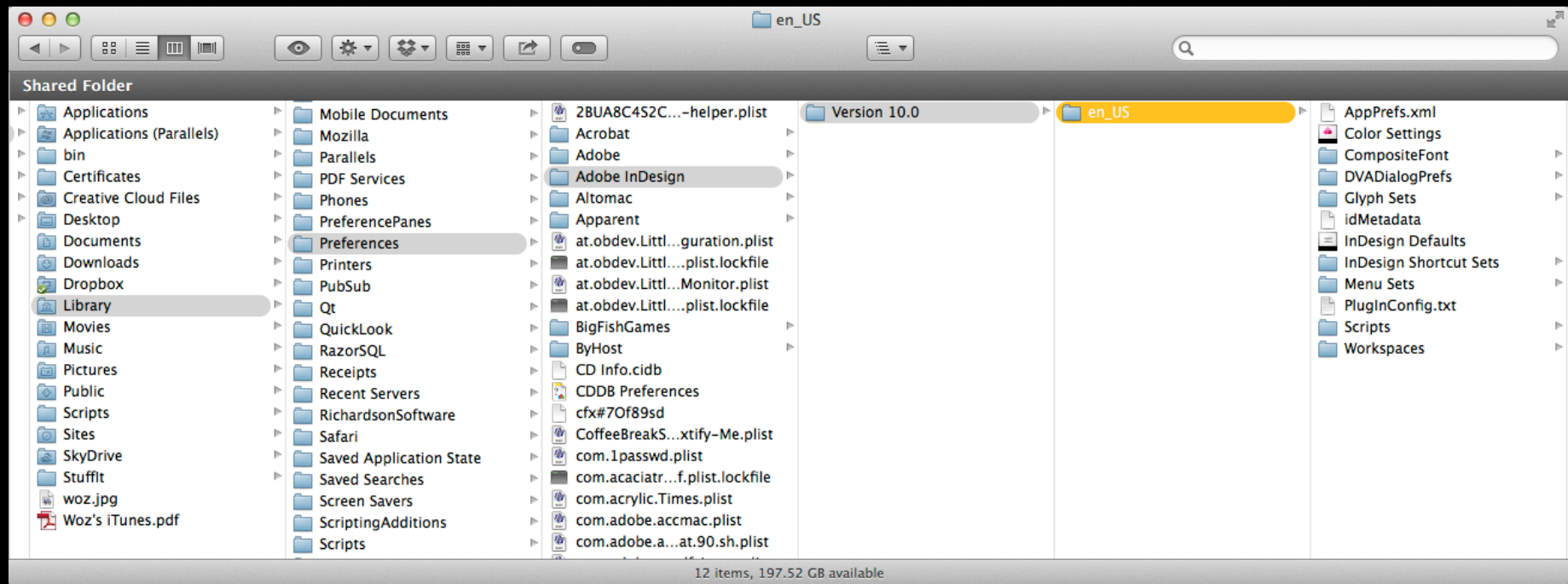
Key / Value pair

Plist: How do we manage it?



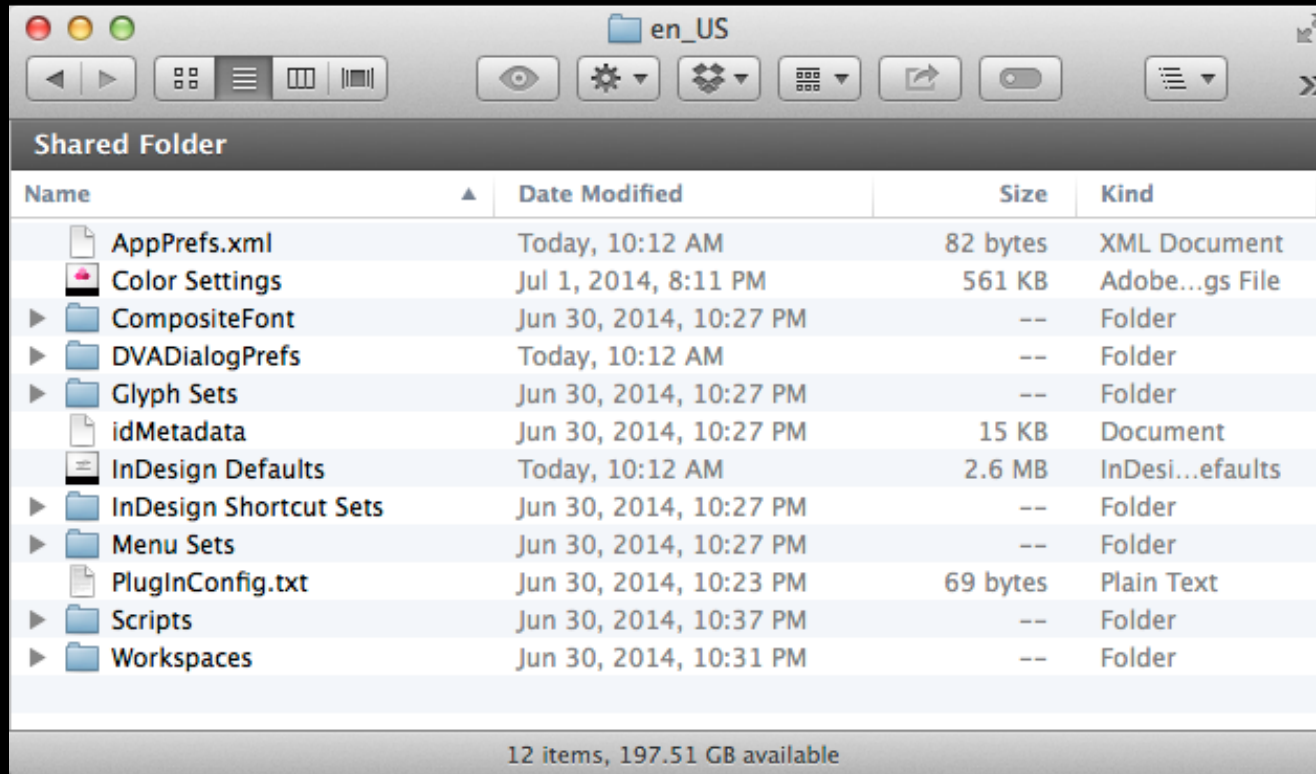
Unmanageable

Plist: How do we manage it?



Unmanageable

Plist: How do we manage it?

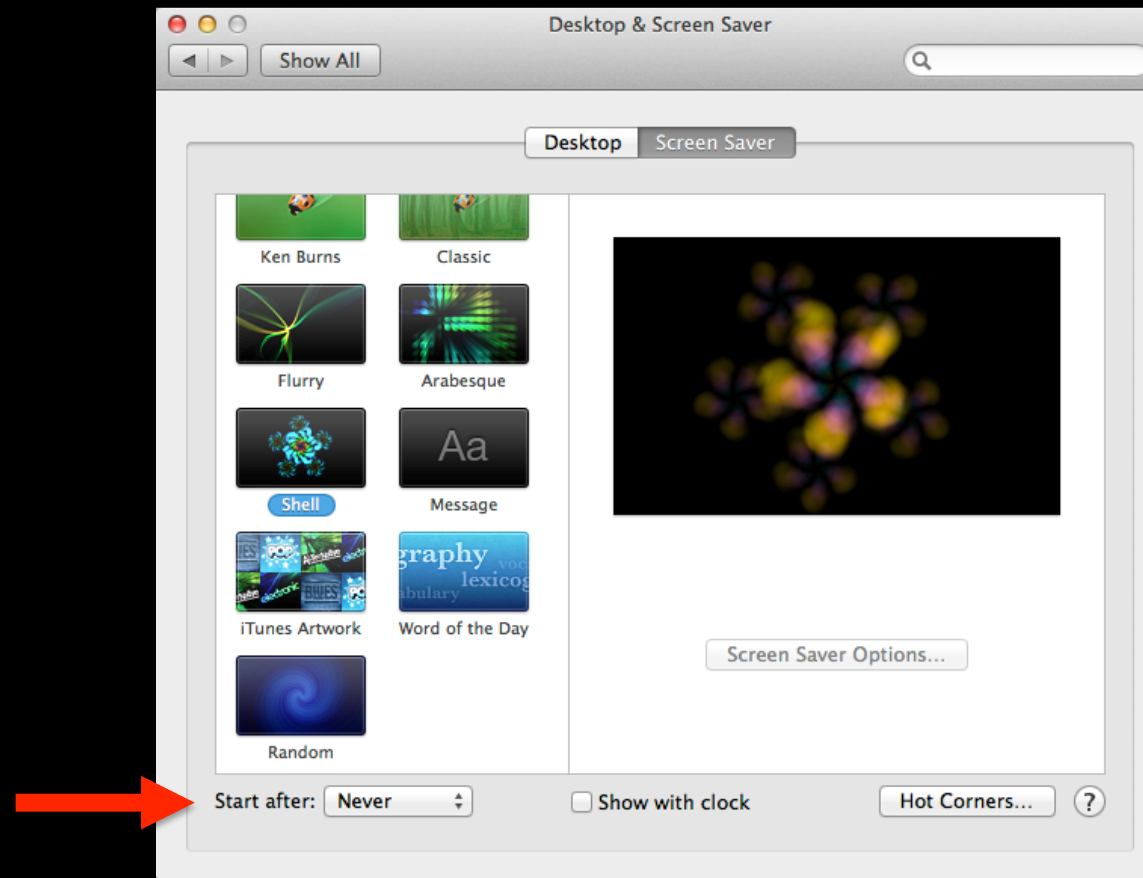


Unmanageable

Plist: How do we manage it?

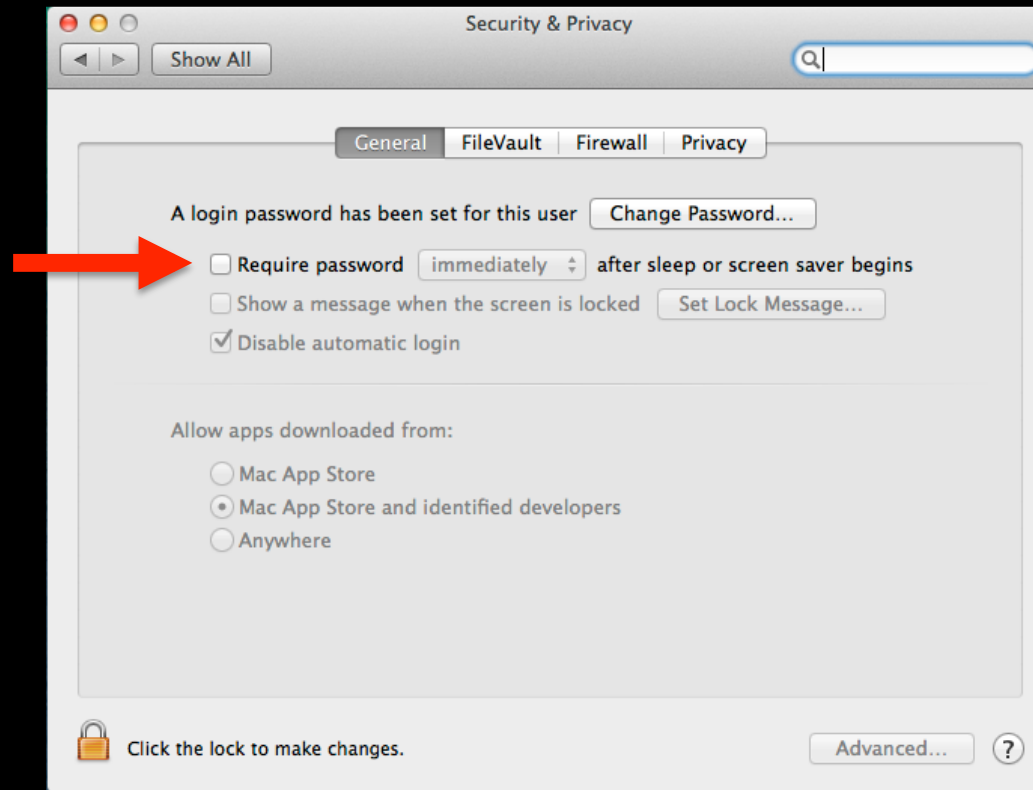


Plist: How do we manage it?



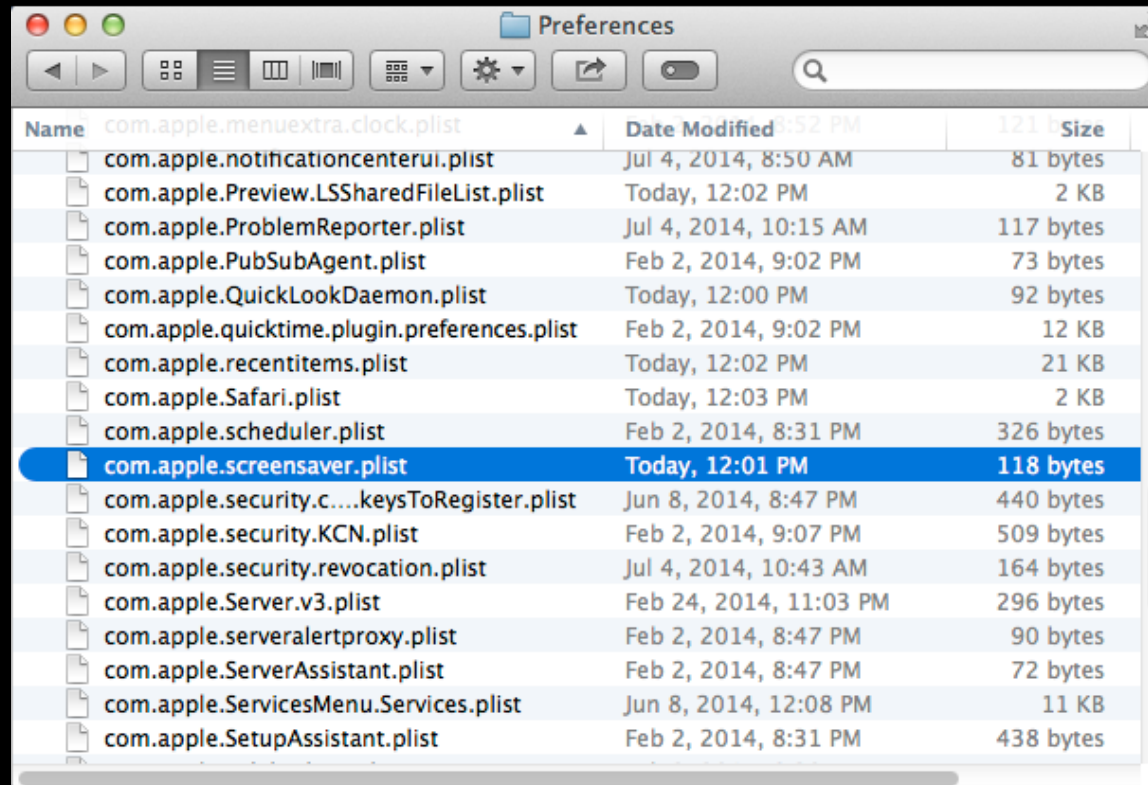
Screen saver lock

Plist: How do we manage it?



Screen saver lock

Plist: How do we manage it?

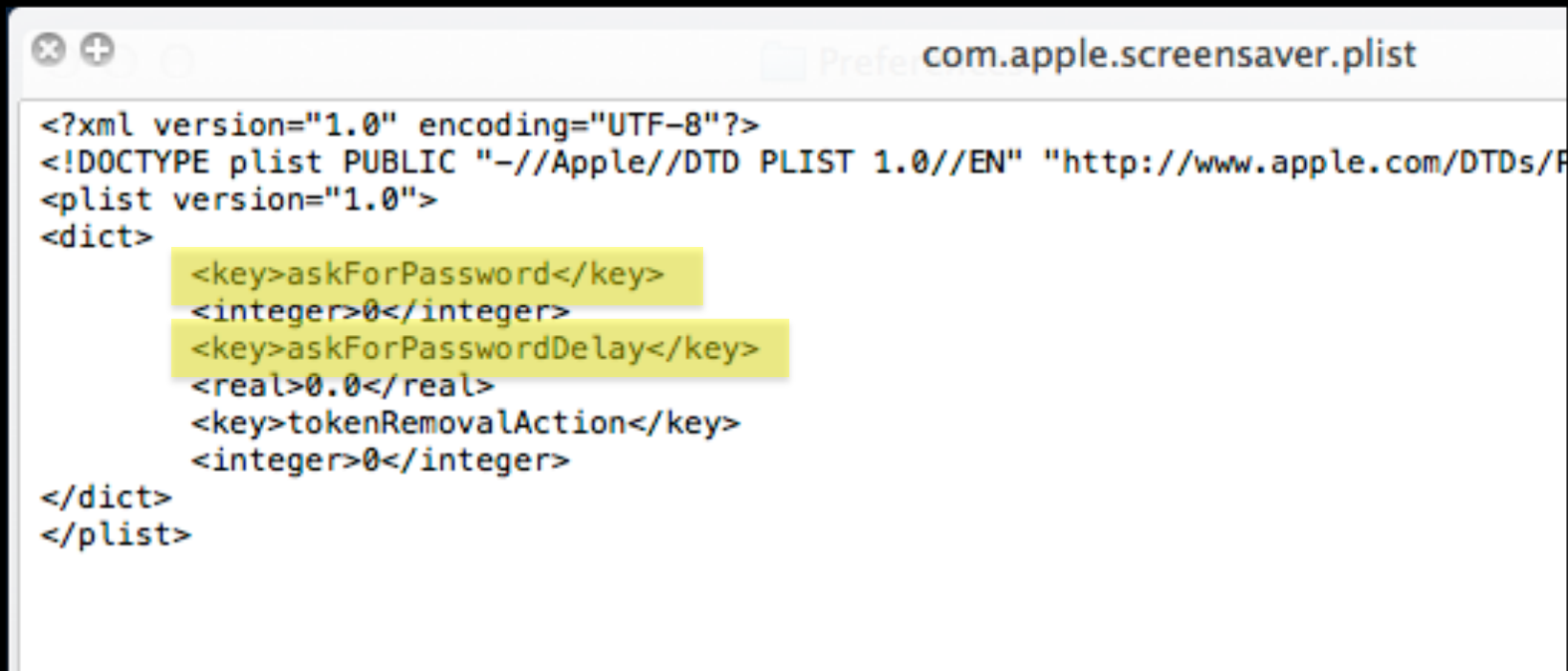


The screenshot shows a macOS 'Preferences' window with a list of plist files. The file 'com.apple.screensaver.plist' is highlighted in blue. The table below represents the data shown in the screenshot.

Name	Date Modified	Size
com.apple.menuextra.clock.plist	Jul 4, 2014, 8:52 PM	121 bytes
com.apple.notificationcenterui.plist	Jul 4, 2014, 8:50 AM	81 bytes
com.apple.Preview.LSSharedFileList.plist	Today, 12:02 PM	2 KB
com.apple.ProblemReporter.plist	Jul 4, 2014, 10:15 AM	117 bytes
com.apple.PubSubAgent.plist	Feb 2, 2014, 9:02 PM	73 bytes
com.apple.QuickLookDaemon.plist	Today, 12:00 PM	92 bytes
com.apple.quicktime.plugin.preferences.plist	Feb 2, 2014, 9:02 PM	12 KB
com.apple.recentitems.plist	Today, 12:02 PM	21 KB
com.apple.Safari.plist	Today, 12:03 PM	2 KB
com.apple.scheduler.plist	Feb 2, 2014, 8:31 PM	326 bytes
com.apple.screensaver.plist	Today, 12:01 PM	118 bytes
com.apple.security.c....keysToRegister.plist	Jun 8, 2014, 8:47 PM	440 bytes
com.apple.security.KCN.plist	Feb 2, 2014, 9:07 PM	509 bytes
com.apple.security.revocation.plist	Jul 4, 2014, 10:43 AM	164 bytes
com.apple.Server.v3.plist	Feb 24, 2014, 11:03 PM	296 bytes
com.apple.serveralertproxy.plist	Feb 2, 2014, 8:47 PM	90 bytes
com.apple.ServerAssistant.plist	Feb 2, 2014, 8:47 PM	72 bytes
com.apple.ServicesMenu.Services.plist	Jun 8, 2014, 12:08 PM	11 KB
com.apple.SetupAssistant.plist	Feb 2, 2014, 8:31 PM	438 bytes

Screen saver lock

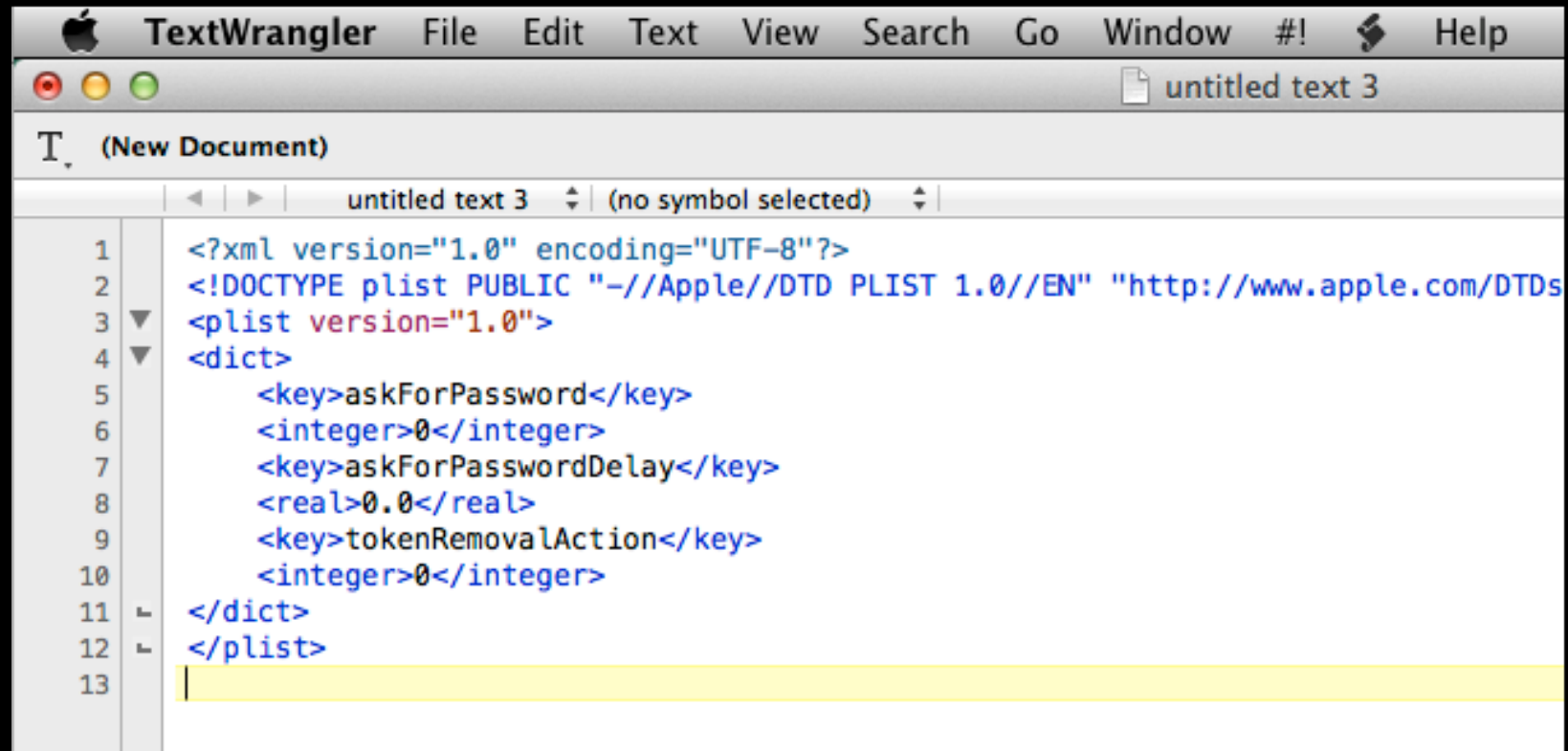
Plist: How do we manage it?

A screenshot of a text editor window showing the contents of a plist file. The window title is 'com.apple.screensaver.plist'. The code is XML-based, representing a dictionary with keys for password-related settings. Some lines are highlighted in yellow.

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE plist PUBLIC "-//Apple//DTD PLIST 1.0//EN" "http://www.apple.com/DTDs/PropertyList-1.0.dtd">
<plist version="1.0">
  <dict>
    <key>askForPassword</key>
    <integer>0</integer>
    <key>askForPasswordDelay</key>
    <real>0.0</real>
    <key>tokenRemovalAction</key>
    <integer>0</integer>
  </dict>
</plist>
```

Screen saver lock

Plist: How do we manage it?

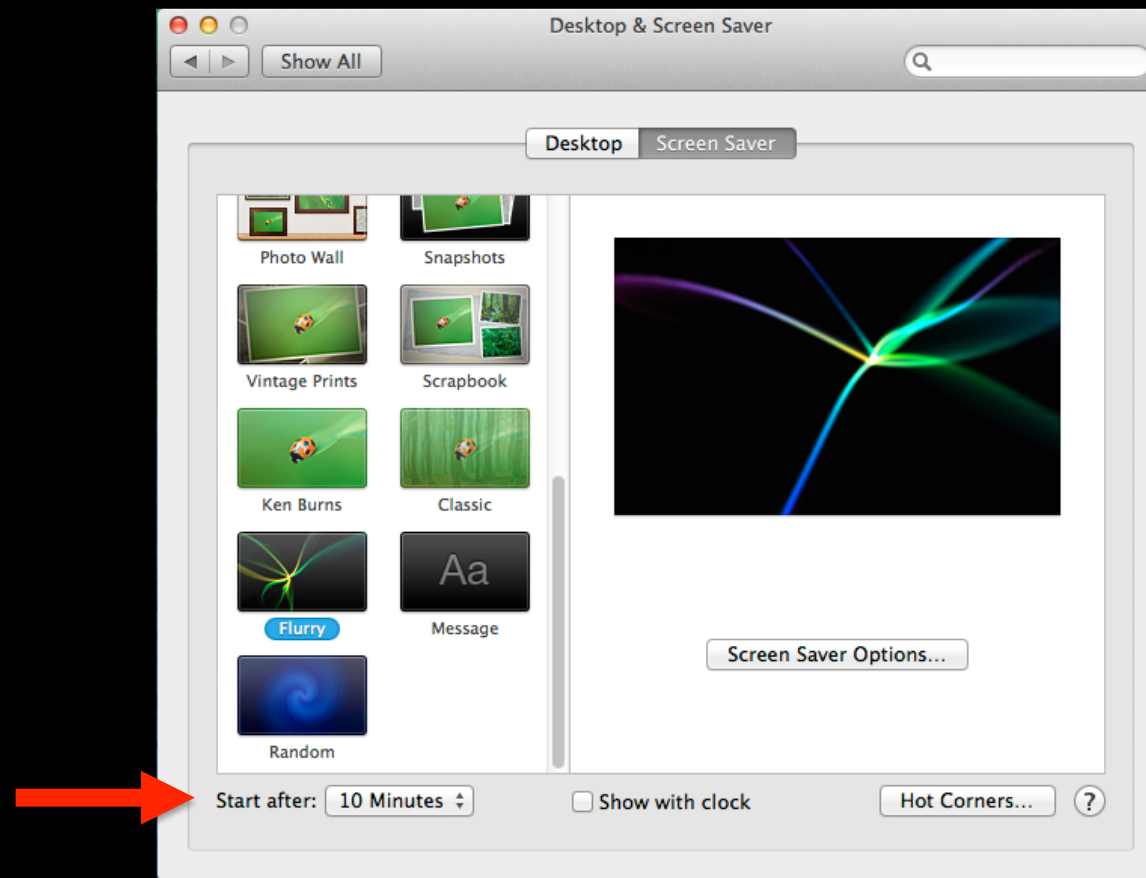


The screenshot shows a TextWrangler window titled 'TextWrangler' with a menu bar (File, Edit, Text, View, Search, Go, Window, #!, Help) and a toolbar. The window contains a document named 'untitled text 3'. The document is a plist XML file with the following content:

```
1 <?xml version="1.0" encoding="UTF-8"?>
2 <!DOCTYPE plist PUBLIC "-//Apple//DTD PLIST 1.0//EN" "http://www.apple.com/DTDs
3 <plist version="1.0">
4 <dict>
5     <key>askForPassword</key>
6     <integer>0</integer>
7     <key>askForPasswordDelay</key>
8     <real>0.0</real>
9     <key>tokenRemovalAction</key>
10    <integer>0</integer>
11 </dict>
12 </plist>
13
```

Screen saver lock

Plist: How do we manage it?



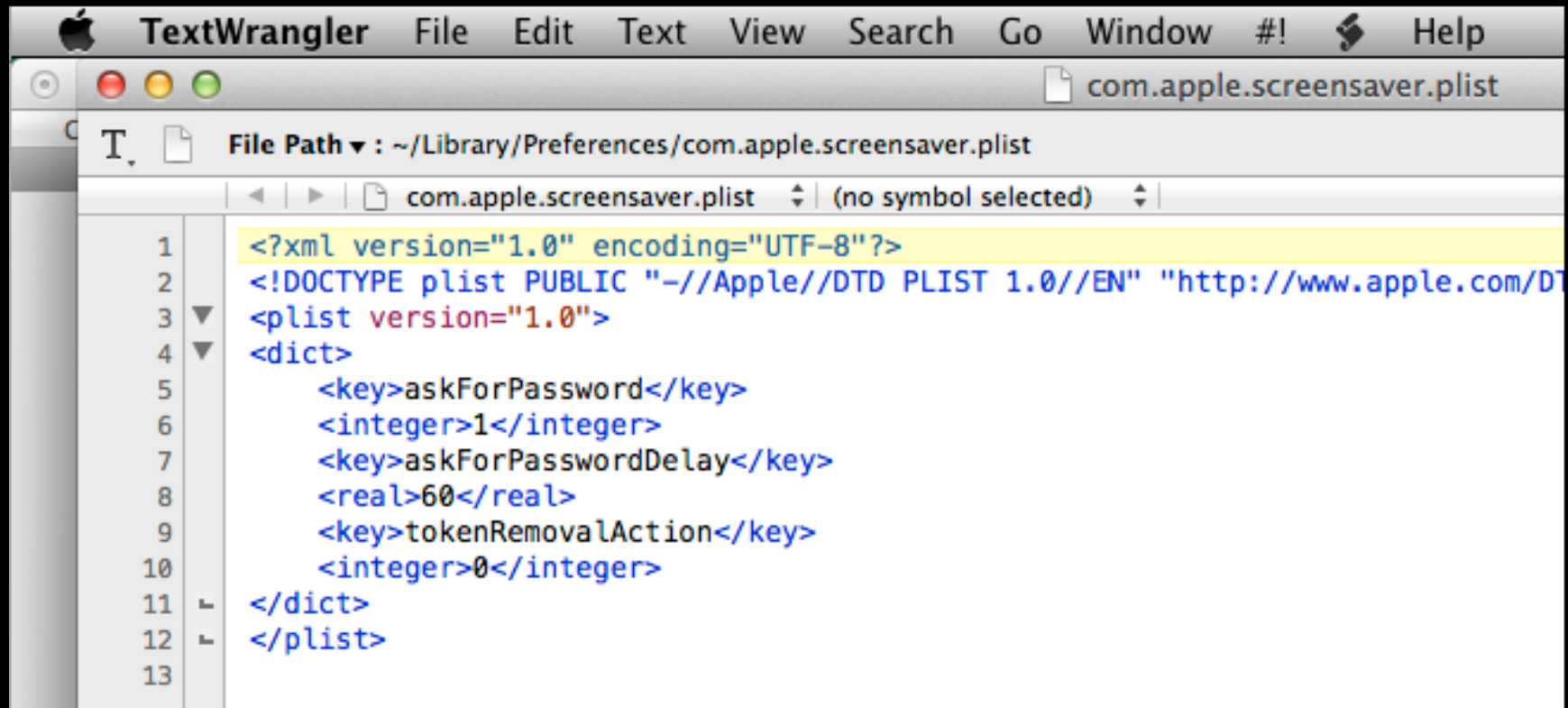
Screen saver lock

Plist: How do we manage it?



Screen saver lock

Plist: How do we manage it?

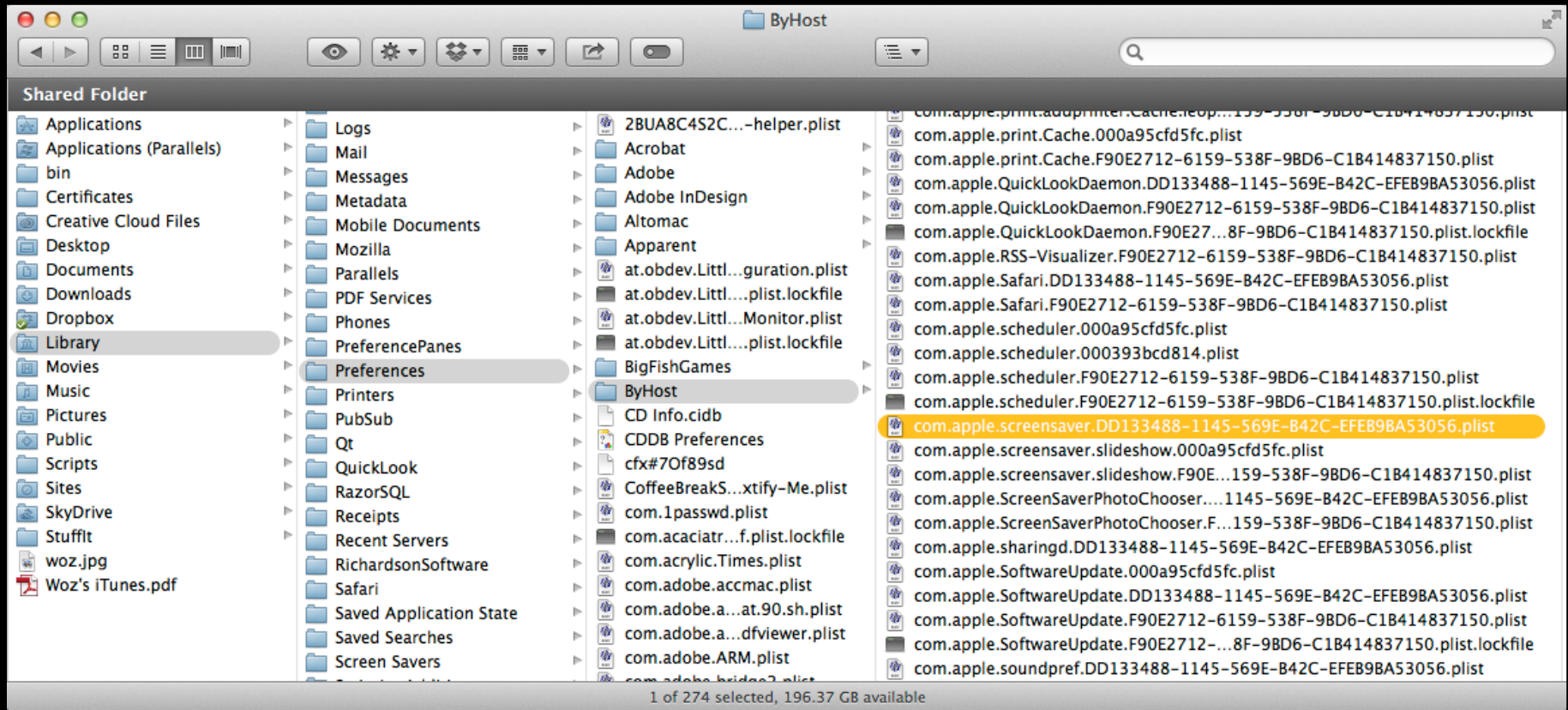


The screenshot shows a TextWrangler window with the title bar 'TextWrangler' and standard macOS window controls. The menu bar includes 'File', 'Edit', 'Text', 'View', 'Search', 'Go', 'Window', '#!', and 'Help'. The window title is 'com.apple.screensaver.plist'. The file path is shown as '~/Library/Preferences/com.apple.screensaver.plist'. The code is a plist file in XML format, with line numbers 1 through 13 on the left. The code content is as follows:

```
1 <?xml version="1.0" encoding="UTF-8"?>
2 <!DOCTYPE plist PUBLIC "-//Apple//DTD PLIST 1.0//EN" "http://www.apple.com/DTD
3 <plist version="1.0">
4 <dict>
5     <key>askForPassword</key>
6     <integer>1</integer>
7     <key>askForPasswordDelay</key>
8     <real>60</real>
9     <key>tokenRemovalAction</key>
10    <integer>0</integer>
11 </dict>
12 </plist>
13
```

Screen saver lock

Plist: How do we manage it?



Screen saver lock

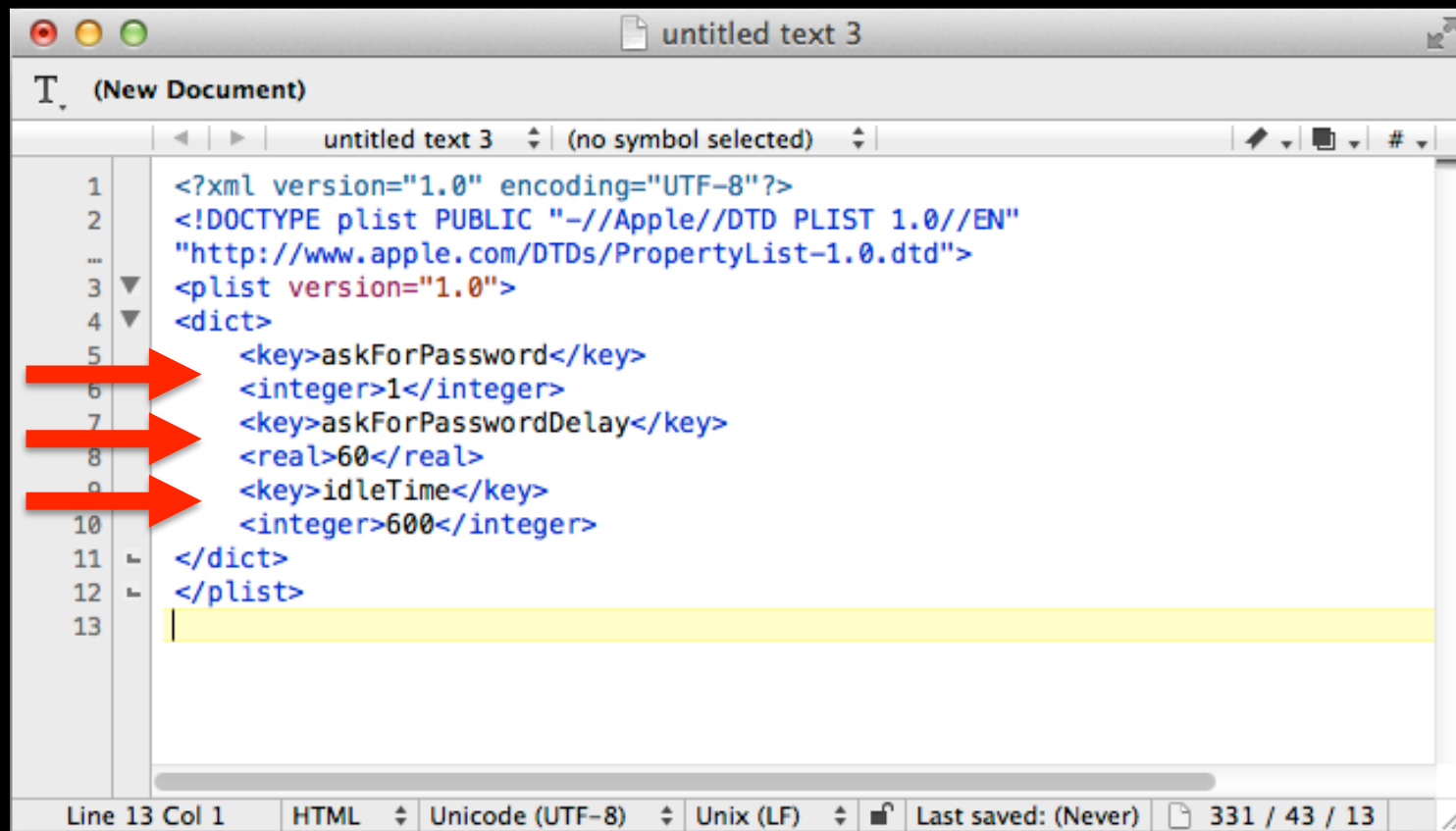
Plist: How do we manage it?

A screenshot of a text editor window showing a plist file. The title bar reads 'com.apple.screensaver.05DAFE5C-93C8-56BE-96DB-3F20135F55DC.plist' and 'Open with TextWrangler'. The code is XML-based, defining a dictionary with keys like 'CleanExit', 'PrefsVersion', 'idleTime', and 'moduleDict'. The 'idleTime' key is highlighted in yellow.

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE plist PUBLIC "-//Apple//DTD PLIST 1.0//EN" "http://www.apple.com/DTDs/PropertyList-1.0.dtd">
<plist version="1.0">
<dict>
  <key>CleanExit</key>
  <string>YES</string>
  <key>PrefsVersion</key>
  <integer>100</integer>
  <key>idleTime</key>
  <integer>600</integer>
  <key>moduleDict</key>
  <dict>
    <key>moduleName</key>
    <string>Flurry</string>
    <key>path</key>
    <string>/System/Library/Screen Savers/Flurry.saver</string>
    <key>type</key>
    <integer>0</integer>
  </dict>
</dict>
</plist>
```

Screen saver lock

Plist: How do we manage it?

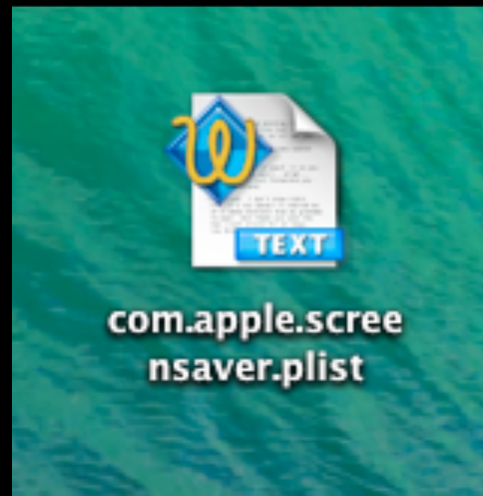


```
1 <?xml version="1.0" encoding="UTF-8"?>
2 <!DOCTYPE plist PUBLIC "-//Apple//DTD PLIST 1.0//EN"
3 "http://www.apple.com/DTDs/PropertyList-1.0.dtd">
4 <plist version="1.0">
5   <dict>
6     <key>askForPassword</key>
7     <integer>1</integer>
8     <key>askForPasswordDelay</key>
9     <real>60</real>
10    <key>idleTime</key>
11    <integer>600</integer>
12  </dict>
13 </plist>
```

Line 13 Col 1 | HTML | Unicode (UTF-8) | Unix (LF) | Last saved: (Never) | 331 / 43 / 13

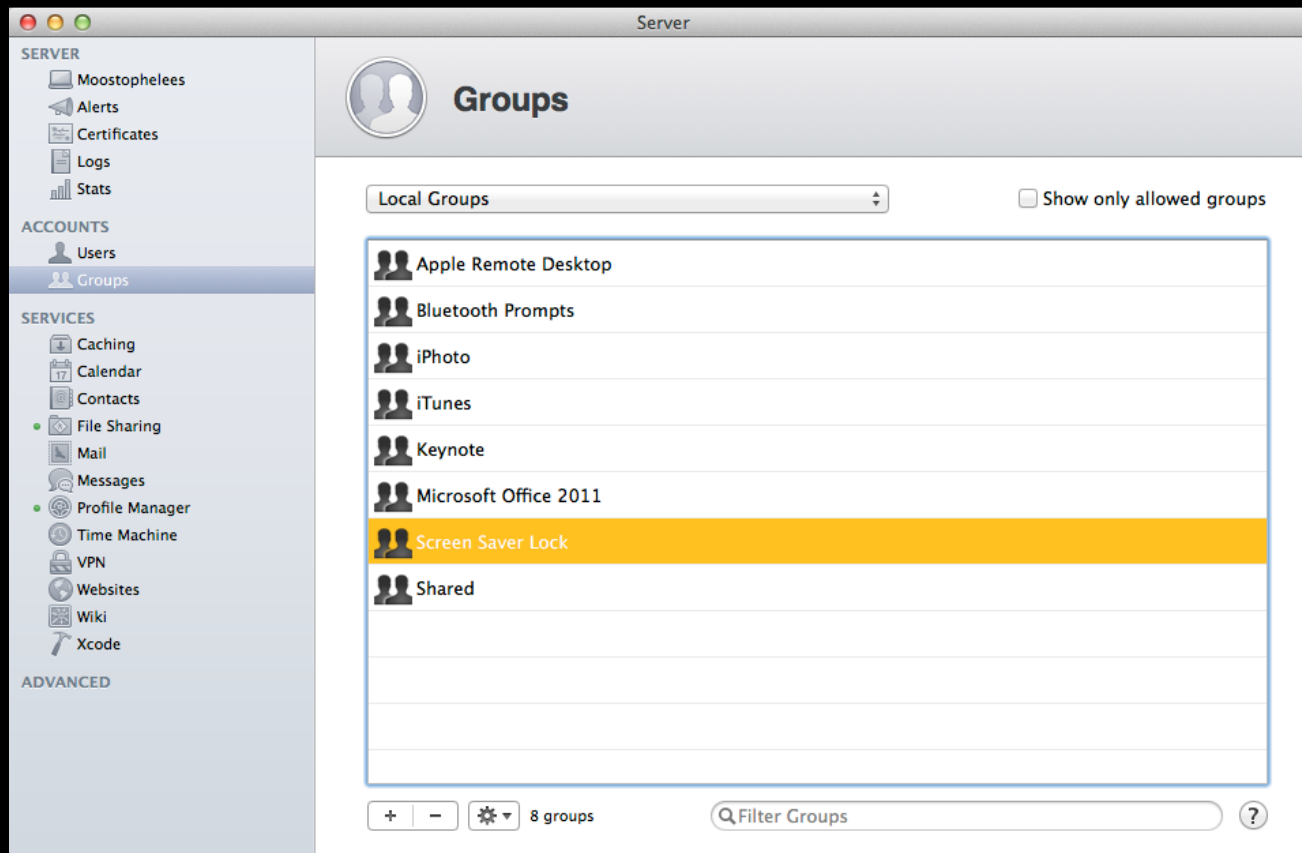
Screen saver lock

Plist: How do we manage it?



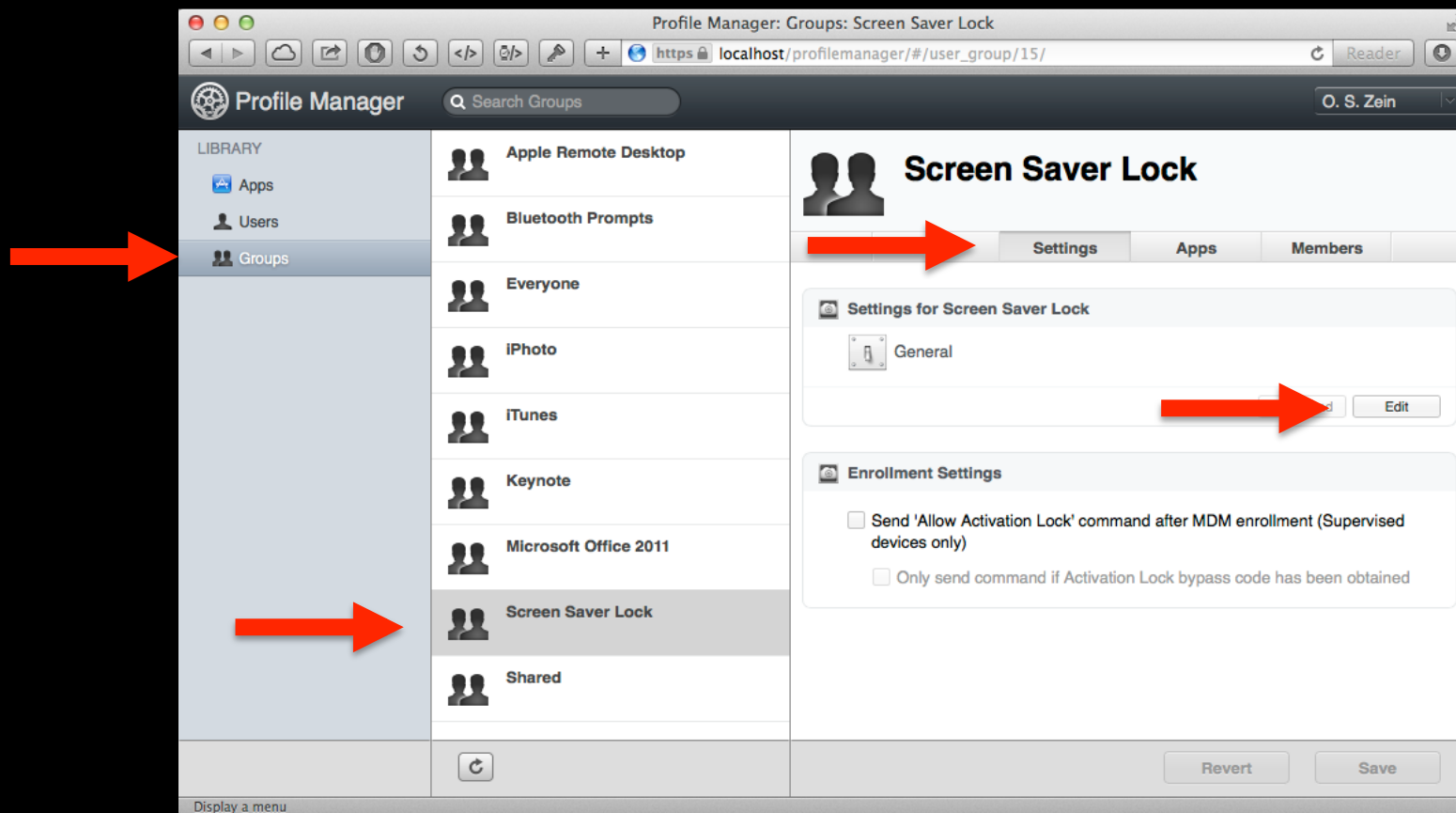
Screen saver lock

Plist: How do we manage it?



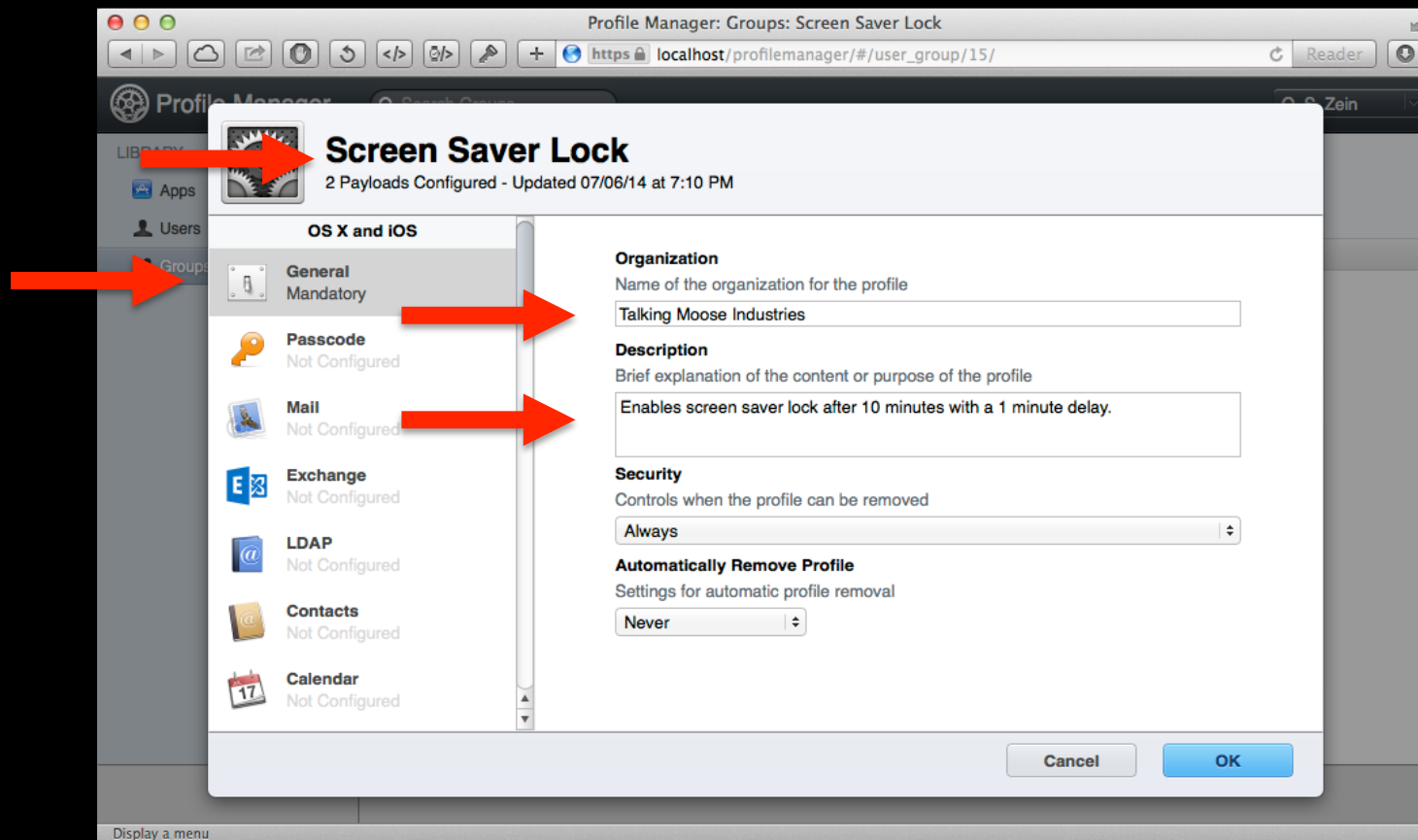
Screen saver lock

Plist: How do we manage it?



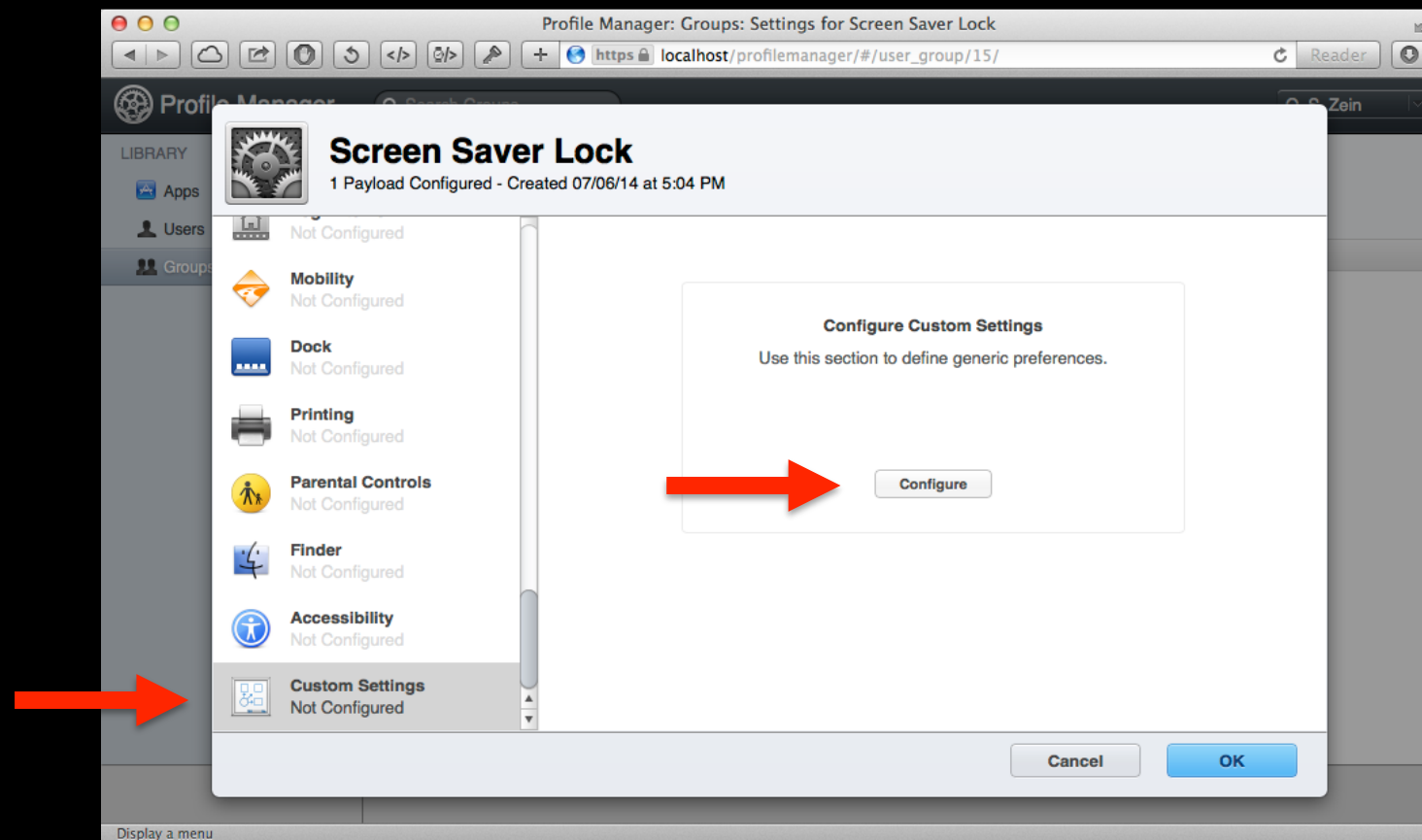
Screen saver lock

Plist: How do we manage it?



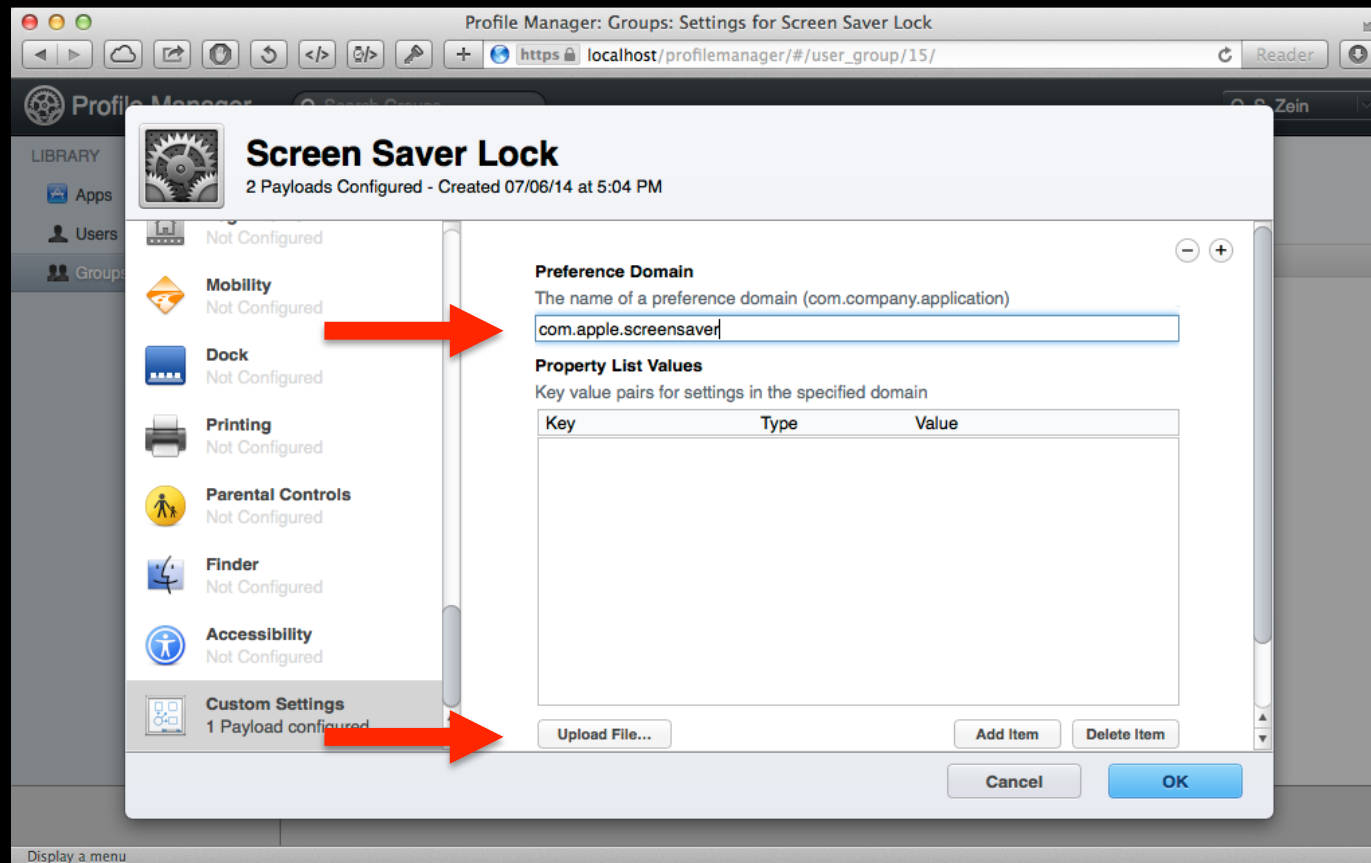
Screen saver lock

Plist: How do we manage it?



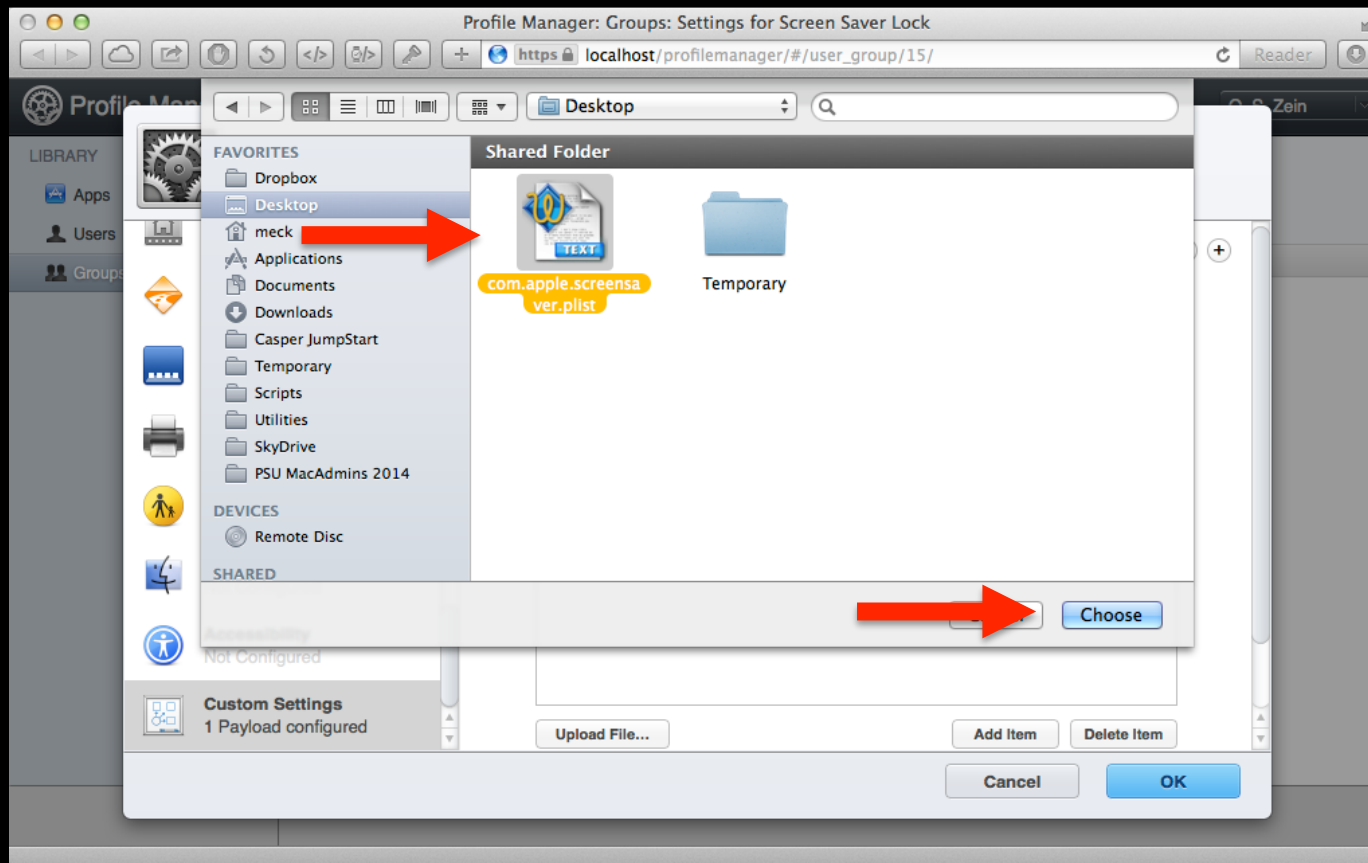
Screen saver lock

Plist: How do we manage it?



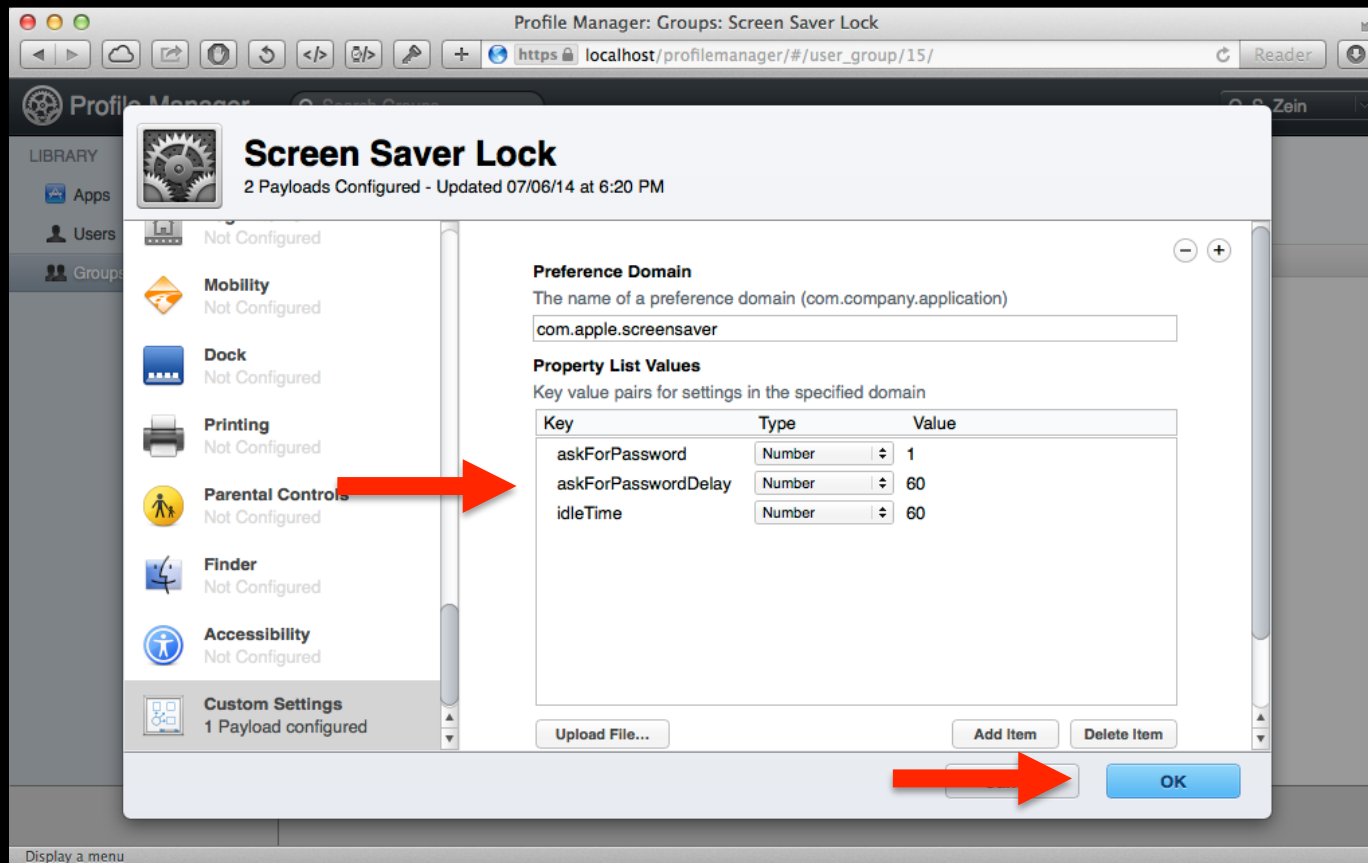
Screen saver lock

Plist: How do we manage it?



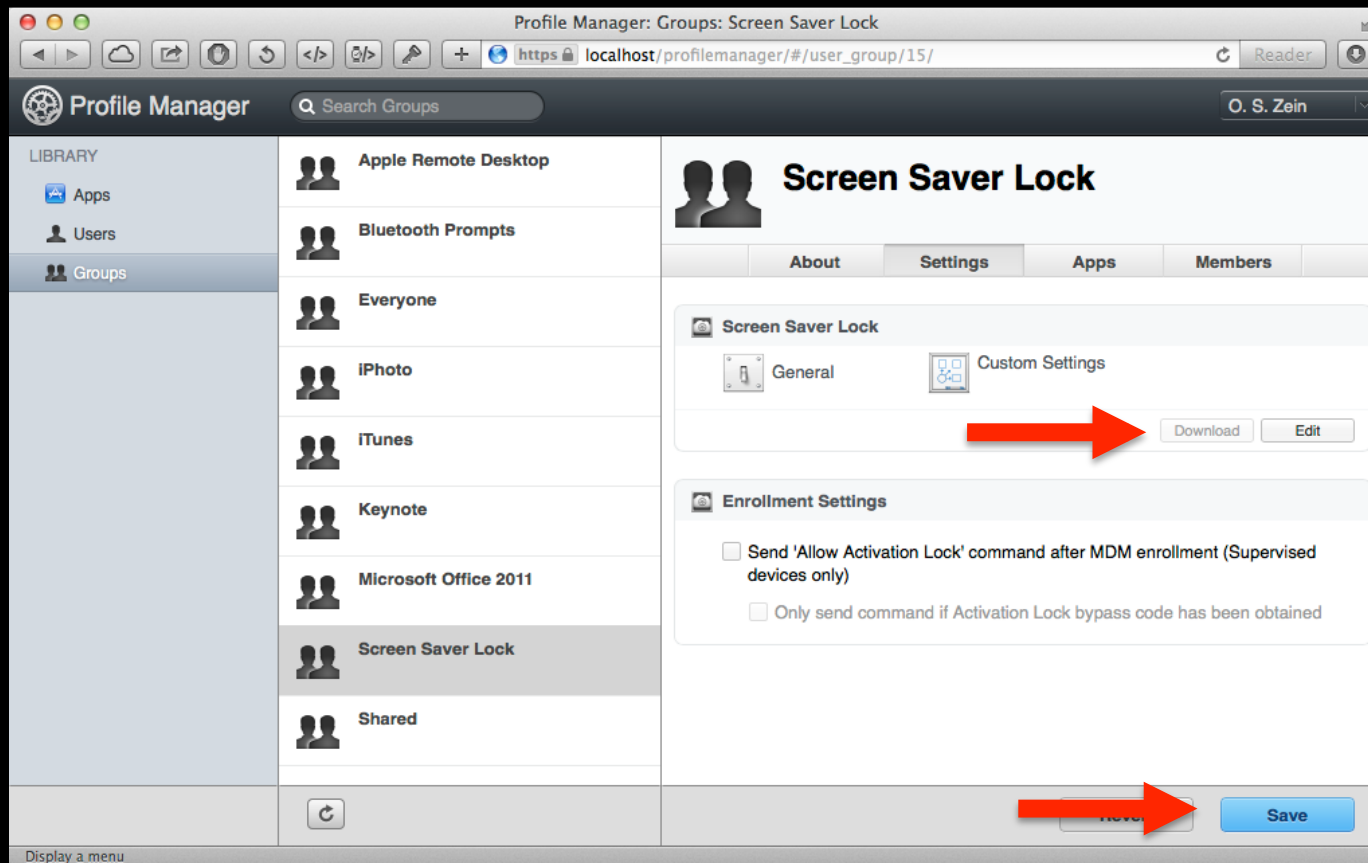
Screen saver lock

Plist: How do we manage it?



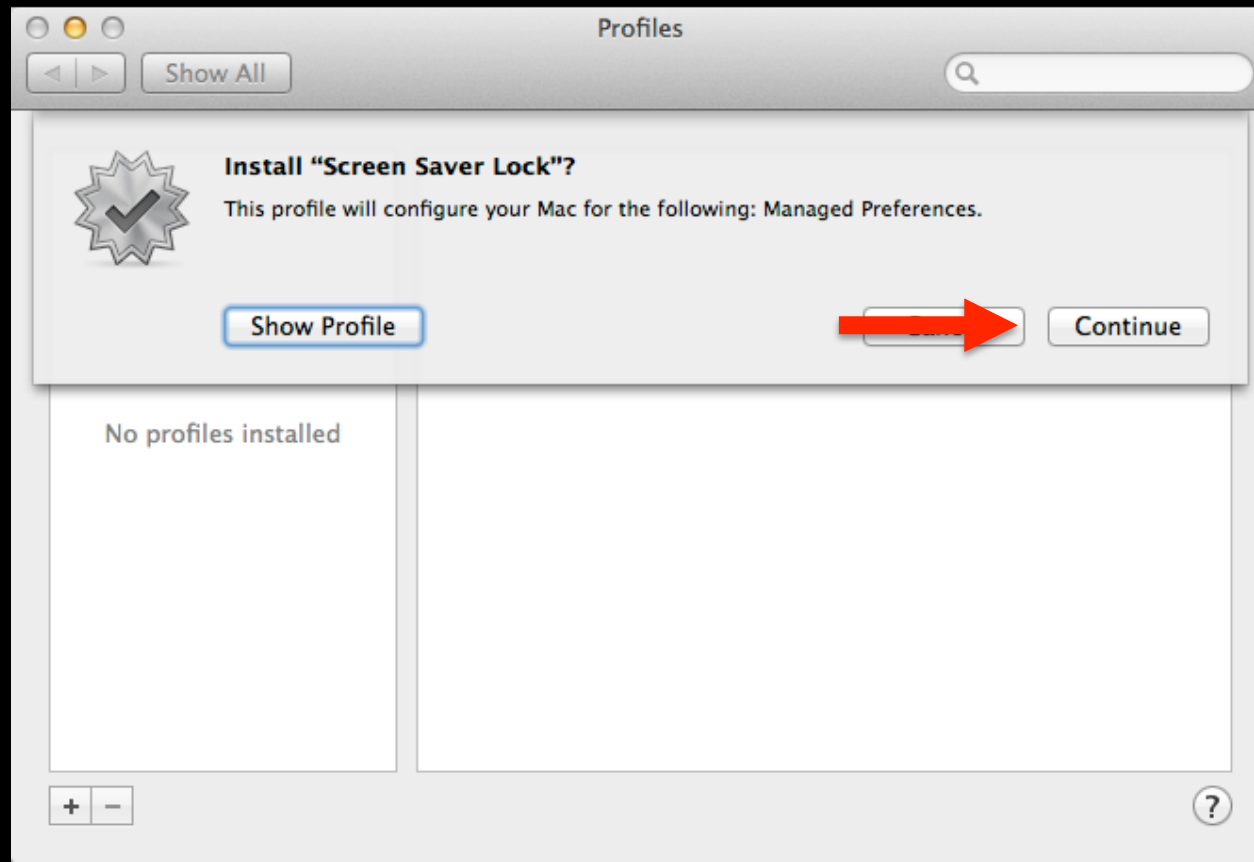
Screen saver lock

Plist: How do we manage it?



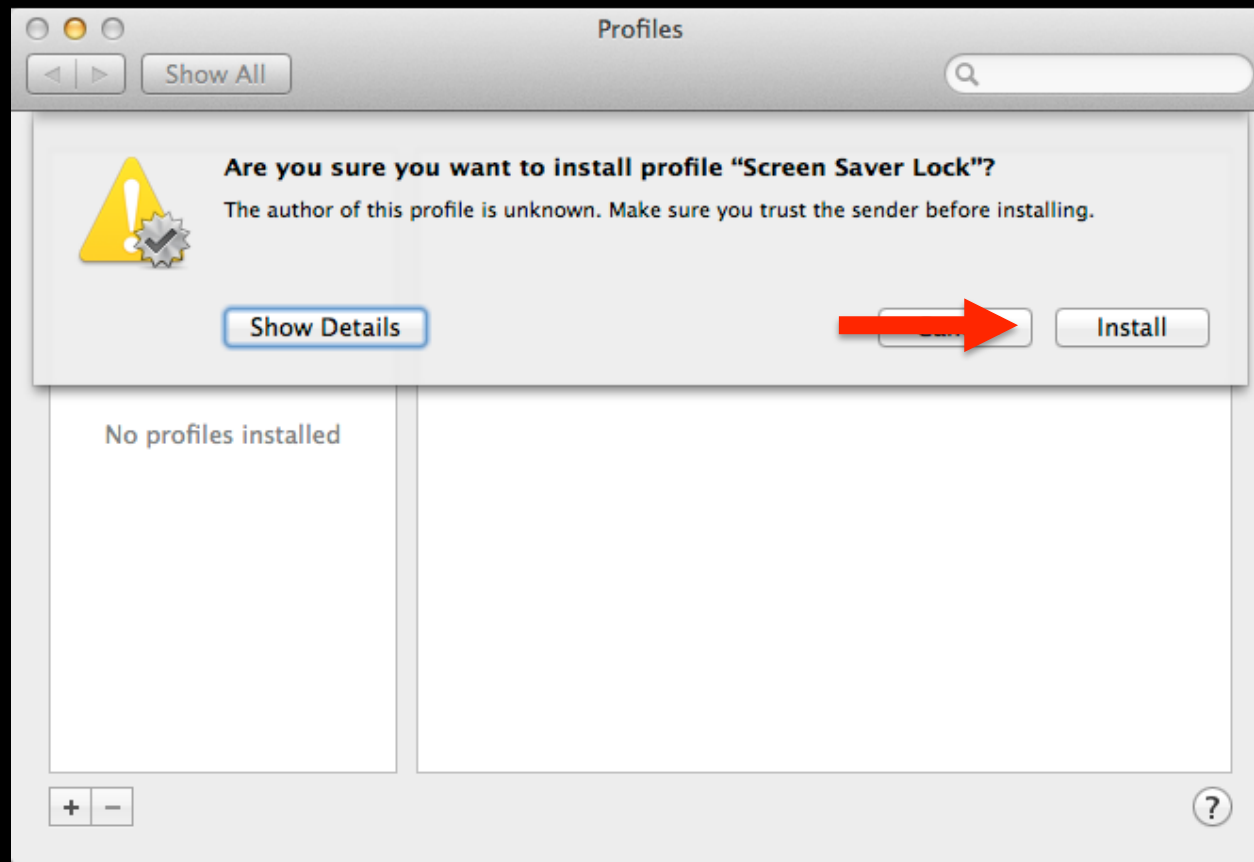
Screen saver lock

Plist: How do we manage it?



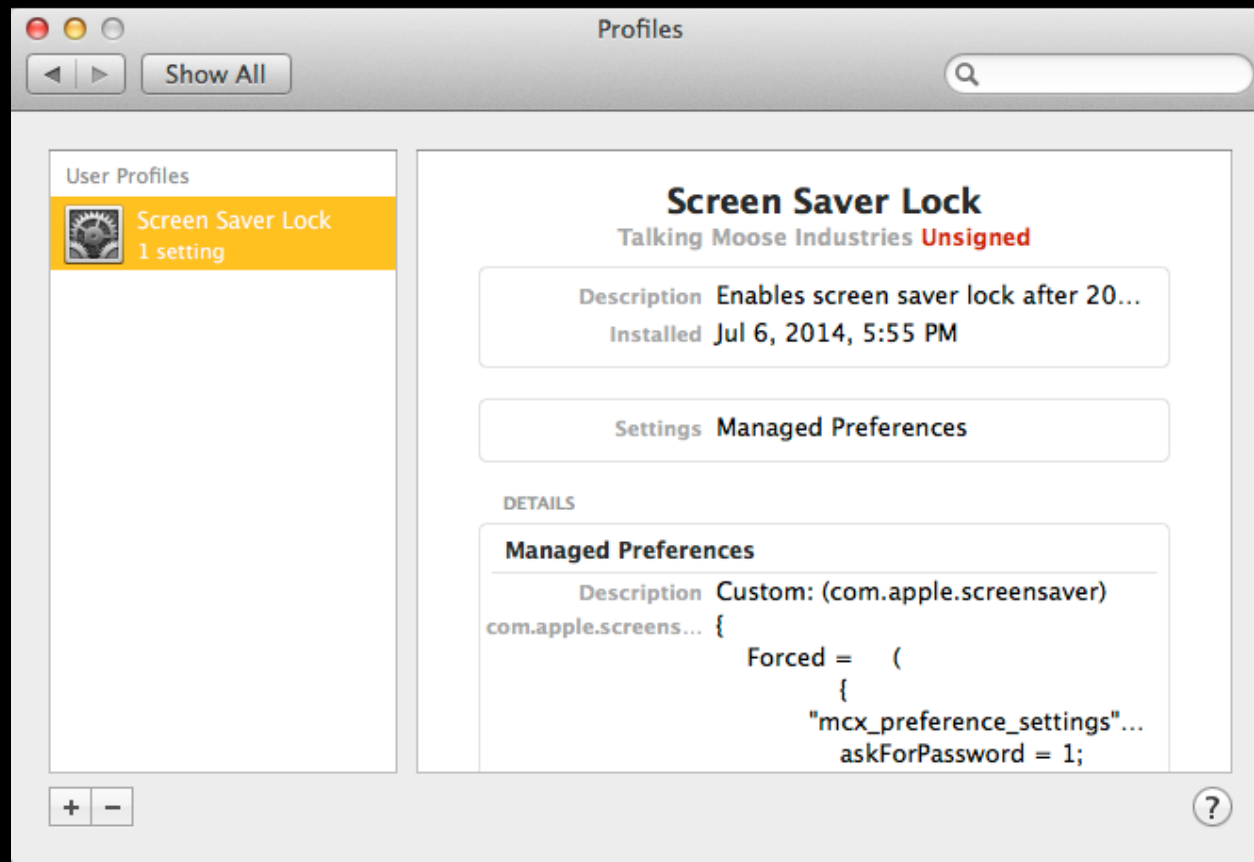
Screen saver lock

Plist: How do we manage it?



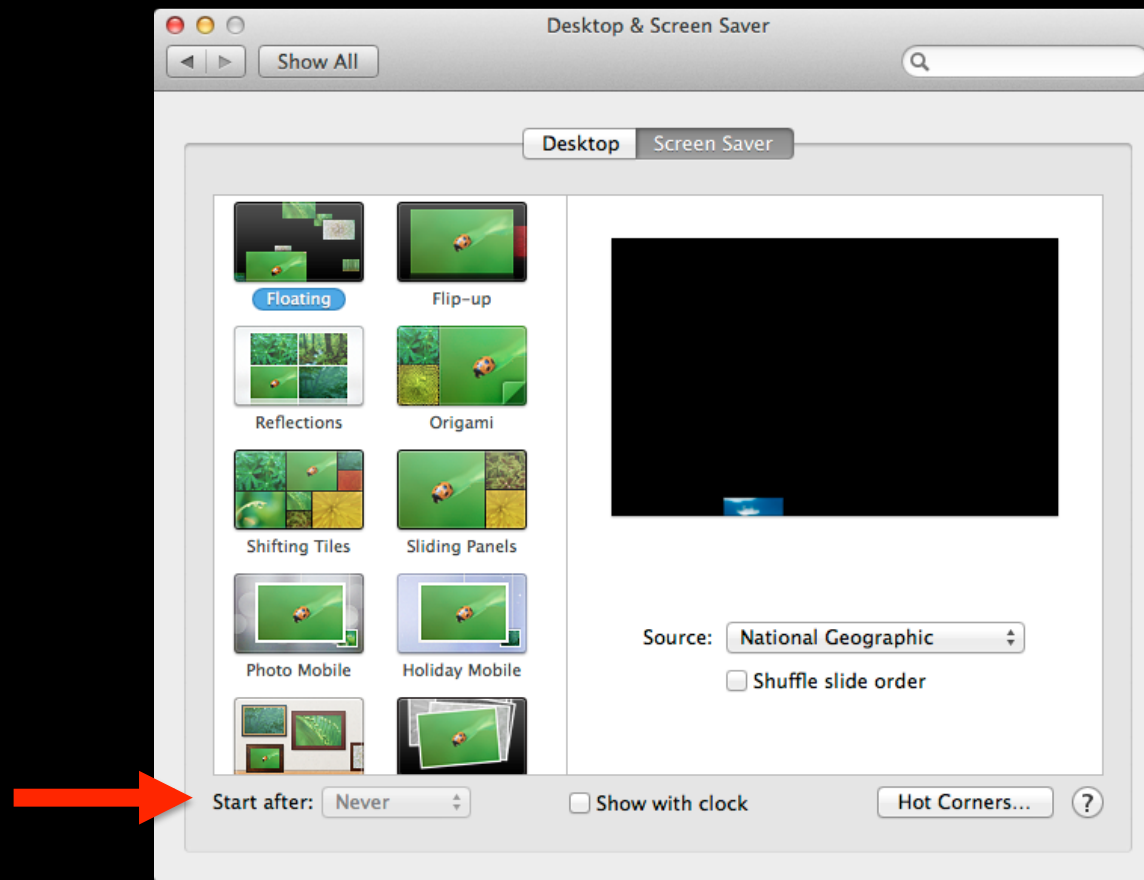
Screen saver lock

Plist: How do we manage it?



Screen saver lock

Plist: How do we manage it?



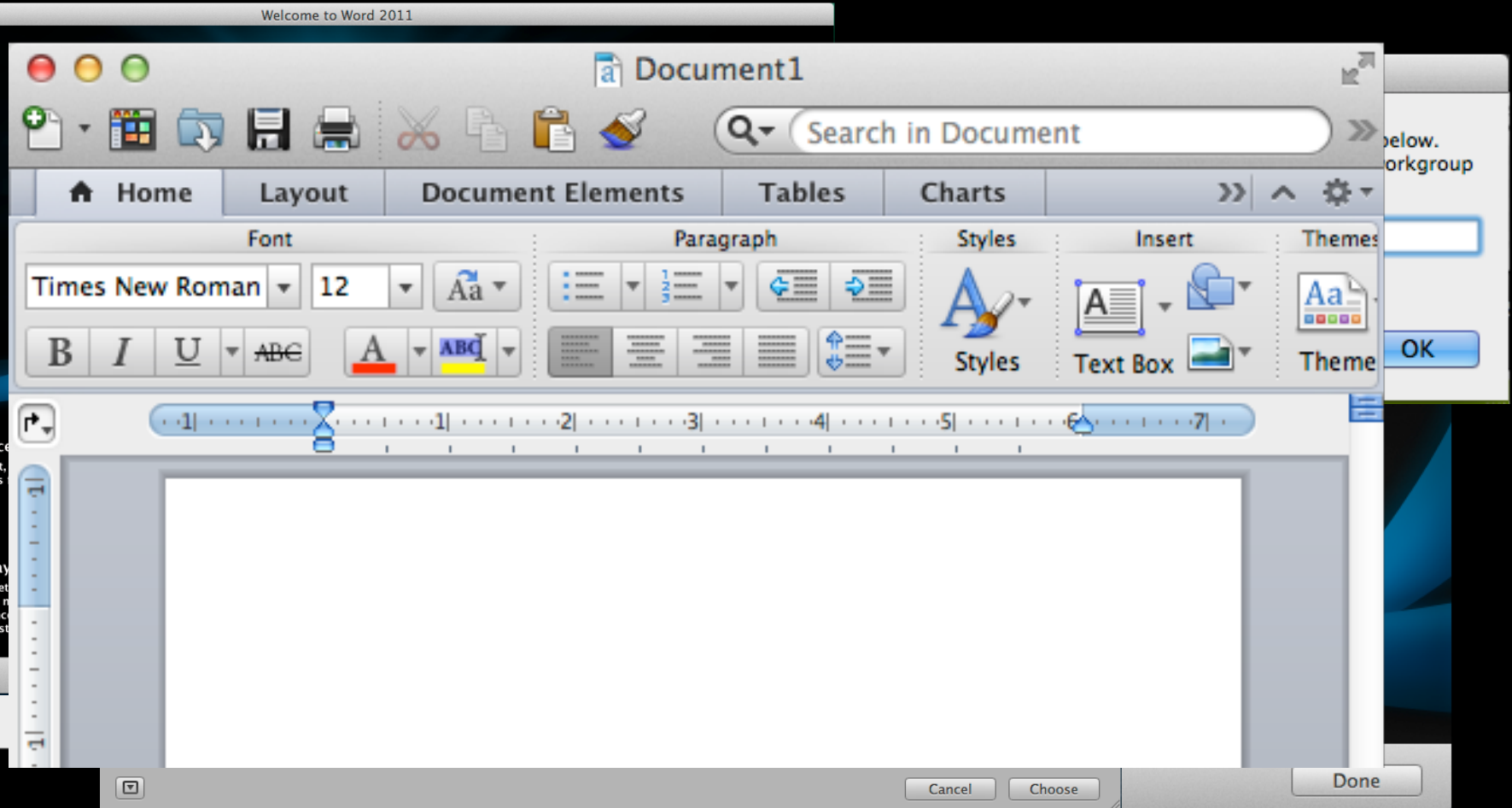
Screen saver lock

Plist: How do we manage it?



Screen saver lock

Plist: How do we manage it?



Microsoft Office 2011

Plist: How do we manage it?

Demo

Microsoft Office 2011

Plist

- ☑ What does it do?
- ☑ Where do we find it?
- ☑ What's in it?
- ☑ How do we manage it?



Q&A





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