
SFCertificatePanel Class Reference

[Security](#) > [Cocoa](#)



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SFCertificatePanel Class Reference

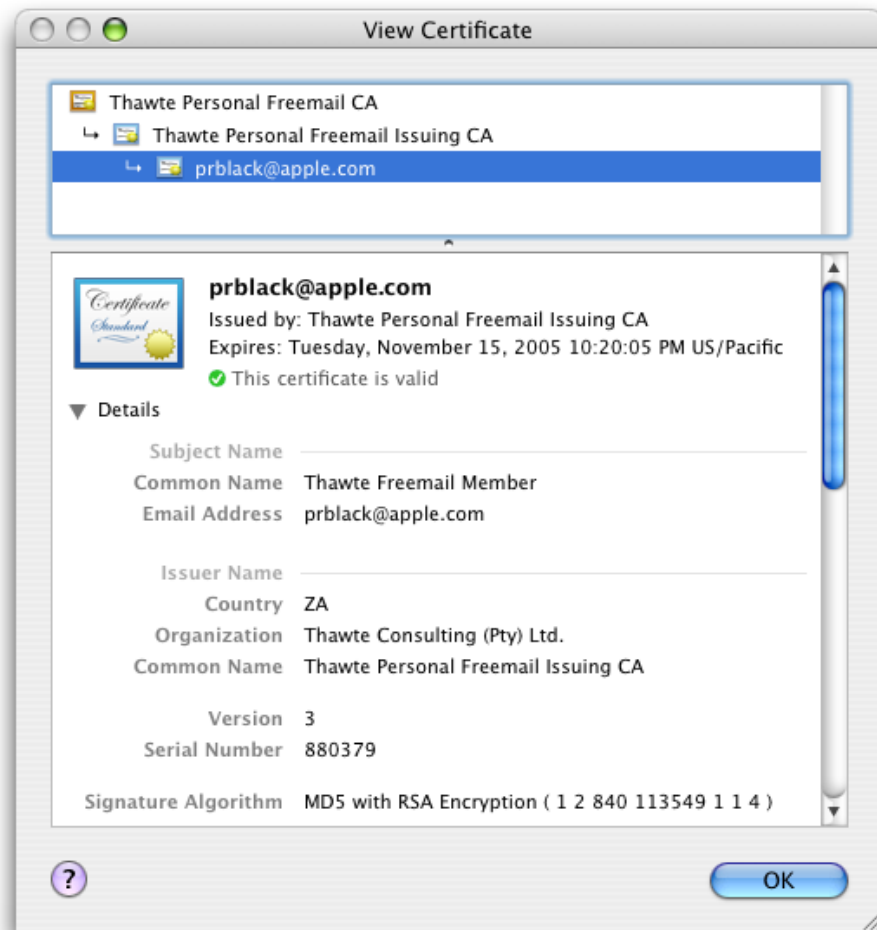
Inherits from	NSPanel : NSWindow : NSResponder : NSObject
Conforms to	NSUserInterfaceValidations (NSWindow) NSAnimatablePropertyContainer (NSWindow) NSCoding (NSResponder) NSObject (NSObject)
Framework	/System/Library/Frameworks/SecurityInterface.framework
Availability	Available in Mac OS X v10.3 and later
Companion guide	Certificate, Key, and Trust Services Programming Guide
Declared in	SFCertificatePanel.h

Overview

The `SFCertificatePanel` class displays one or more certificates in a panel or sheet. It can optionally display all of the certificates in a certificate chain.

The following figure shows an example of a certificate panel.

Figure 1 Certificate panel



This class displays certificate details, but not trust settings. To display a certificate with editable trust settings in a panel or sheet, use the `SFCertificateTrustPanel` class (`SFCertificateTrustPanel`). To display certificates in a custom view, use the `SFCertificateView` class (`SFCertificateView`).

Note that for Mac OS X v10.4 and later, this class displays the evaluation status for each certificate. You can modify how the certificates are evaluated by calling the `setPolicies:` (page 14) method.

Tasks

Returning a Shared Certificate Panel Object

+ `sharedCertificatePanel` (page 9)

Returns a shared certificate panel object. If the object has not already been created, this method allocates and initializes the object first.

Providing Help

- [setHelpAnchor:](#) (page 14)
Sets the help anchor string for the sheet or modal panel.
- [setShowsHelp:](#) (page 15)
Displays a Help button in the sheet or panel.
- [helpAnchor](#) (page 11)
Returns the current help anchor string for the sheet or panel.
- [showsHelp](#) (page 15)
Indicates whether the help button is currently set to be displayed.

Customizing the Appearance of the Sheet or Panel

- [setAlternateButtonTitle:](#) (page 13)
Customizes the title of the alternate button.
- [setDefaultButtonTitle:](#) (page 13)
Customizes the title of the default button.
- [setPolicies:](#) (page 14)
Specifies one or more policies that apply to the displayed certificates.
- [policies](#) (page 12)
Returns an array of policies used to evaluate the status of the displayed certificates.

Displaying a Sheet or Panel

- [beginSheetForWindow:modalDelegate:didEndSelector:contextInfo:certificates:showGroup:](#) (page 10)
Displays one or more certificates in a modal sheet.
- [runModalForCertificates:showGroup:](#) (page 12)
Displays one or more specified certificates in a modal panel.

Providing help

- [certificatePanelShowHelp:](#) (page 16) *delegate method*
Implements custom help behavior for the modal panel.

Class Methods

sharedCertificatePanel

Returns a shared certificate panel object. If the object has not already been created, this method allocates and initializes the object first.

```
+ (SFCertificatePanel *)sharedCertificatePanel
```

Discussion

Use this method if your application displays a single certificate panel or sheet at a time. If your application can display multiple certificate panels or sheets at once, you must allocate separate object instances (using the `alloc` class method inherited from `NSObject`) and initialize them (using the `init` instance method, also inherited from `NSObject`) instead of using this class method.

Availability

Available in Mac OS X v10.3 and later.

See Also

`+alloc (NSObject)`

`-init (NSObject)`

Declared In

`SFCertificatePanel.h`

Instance Methods

beginSheetForWindow:modalDelegate:didEndSelector:contextInfo:certificates:showGroup:

Displays one or more certificates in a modal sheet.

```
- (void)beginSheetForWindow:(NSWindow *)docWindow modalDelegate:(id)delegate
    didEndSelector:(SEL)didEndSelector contextInfo:(void *)contextInfo
    certificates:(NSArray *)certificates showGroup:(BOOL)showGroup
```

Parameters

docWindow

The parent window to which the sheet is attached.

delegate

The delegate object in which the method specified in the `didEndSelector` parameter is implemented.

didEndSelector

A method selector for a delegate method called when the sheet has been dismissed. Implementation of this delegate method is optional.

contextInfo

A pointer to data that is passed to the delegate method. You can use this data pointer for any purpose you wish.

certificates

The certificates to display. Pass an `NSArray` containing one or more objects of type `SecCertificateRef` in this parameter. The first certificate in the array must be the leaf certificate. The other certificates (if any) can be included in any order.

showGroup

Specifies whether additional certificates (other than the leaf certificate) are displayed.

Discussion

The behavior of this method is somewhat different in Mac OS X v10.4 and later versus Mac OS X v10.3. In Mac OS X v10.3, the sheet displays whatever certificates you pass in the *certificates* parameter (provided the *showGroup* parameter is set to YES). Starting with Mac OS X v10.4, the sheet displays the leaf certificate (that is, the first certificate in the array you pass) plus any other certificates in the certificate chain that the Security Server can find. If you include all of the certificates in the chain in the *certificates* parameter, you can ensure that the same certificates are displayed whatever the version of the operating system, and may decrease the time required to find and display the certificates in Mac OS X v10.4 and later.

The delegate method has the following signature:

```
-(void)createPanelDidEnd:(NSWindow *)sheet
    returnCode:(int)returnCode
    contextInfo:(void *)contextInfo
```

The parameters for the delegate method are:

sheet

The window to which the sheet was attached.

returnCode

The result code indicating which button the user clicked: either `NSFileHandlingPanelOKButton` or `NSFileHandlingPanelCancelButton`.

contextInfo

Client-defined contextual data that is passed in the `contextInfo` parameter of the `beginSheetForDirectory:... method`.

The delegate method may dismiss the keychain settings sheet itself; if it does not, the sheet is dismissed on return from the `beginSheetForDirectory:... method`.

Availability

Available in Mac OS X v10.3 and later.

See Also

- [runModalForCertificates:showGroup:](#) (page 12)

Declared In

`SFCertificatePanel.h`

helpAnchor

Returns the current help anchor string for the sheet or panel.

```
-(NSString *)helpAnchor
```

Availability

Mac OS X v10.4

See Also

- [setHelpAnchor:](#) (page 14)

Declared In

`SFCertificatePanel.h`

policies

Returns an array of policies used to evaluate the status of the displayed certificates.

- (NSArray *)policies

Discussion

This method returns an autoreleased NSArray containing one or more objects of type `SecPolicyRef`, as set by a previous `setPolicies:` call, or the Apple X.509 Basic Policy if `setPolicies:` has not been called. See “AppleX509TP Trust Policies” in *Certificate, Key, and Trust Services Reference* for a list of policies and object identifiers provided by the AppleX509TP module.

Availability

Mac OS X v10.4

See Also

- [setPolicies:](#) (page 14)

Declared In

SFCertificatePanel.h

runModalForCertificates:showGroup:

Displays one or more specified certificates in a modal panel.

- (NSInteger)runModalForCertificates:(NSArray *)certificates showGroup:(BOOL)showGroup

Parameters

certificates

The certificates to display. Pass an NSArray containing one or more objects of type `SecCertificateRef` in this parameter. The first certificate in the array must be the leaf certificate. The other certificates (if any) can be included in any order.

showGroup

Specifies whether additional certificates (other than the leaf certificate) are displayed. To show only a single certificate, specify only one `SecCertificateRef` in the array and set `showGroup` to NO.

Discussion

This method returns the integer constant `NSOKButton` when dismissed.

The behavior of this method is somewhat different in Mac OS X v10.4 and later versus Mac OS X v10.3. In Mac OS X v10.3, the panel displays whatever certificates you pass in the *certificates* parameter (provided the *showGroup* parameter is set to YES). Starting with Mac OS X v10.4, the panel displays the leaf certificate (that is, the first certificate in the array you pass) plus any other certificates in the certificate chain that the Security Server can find. If you include all of the certificates in the chain in the *certificates* parameter, you can ensure that the same certificates are displayed whatever the version of the operating system, and may decrease the time required to find and display the certificates in Mac OS X v10.4 and later.

Availability

Available in Mac OS X v10.3 and later.

See Also

- [beginSheetForWindow:modalDelegate:didEndSelector:contextInfo:certificates:showGroup:](#) (page 10)

Declared In

SFCertificatePanel.h

setAlternateButtonTitle:

Customizes the title of the alternate button.

```
- (void)setAlternateButtonTitle:(NSString *)title
```

Parameters*title*

The new title for the alternate button. If this method is not called, or if *title* is set to `nil`, the button is not shown.

Discussion

The alternate button is typically labelled “Cancel”. The alternate button dismisses the sheet or panel and returns a value of `NSCancelButton`.

Availability

Mac OS X v10.4

See Also

- [setDefaultButtonTitle:](#) (page 13)
- `runModalForTrust:message:`

Declared In

SFCertificatePanel.h

setDefaultButtonTitle:

Customizes the title of the default button.

```
- (void)setDefaultButtonTitle:(NSString *)title
```

Parameters*title*

The new title for the default button. The default title for this button is “OK”.

Discussion

The default button dismisses the sheet or panel and returns a value of `NSOKButton`.

Availability

Mac OS X v10.4

See Also

- [setAlternateButtonTitle:](#) (page 13)

Declared In

SFCertificatePanel.h

setHelpAnchor:

Sets the help anchor string for the sheet or modal panel.

- (void)setHelpAnchor:(NSString *)*anchor*

Parameters

anchor

The new help anchor string.

Discussion

You may call this function to set a help anchor string if you display a help button in the sheet or modal panel and do not implement the delegate method `certificatePanelShowHelp:`, or if the delegate method returns `NO`. If you display a help button, do not set a help anchor string, and do not implement a delegate, the certificate panel displays a default help page (“Why isn’t a certificate being accepted?”).

Availability

Mac OS X v10.4

See Also

- [setShowsHelp:](#) (page 15)
- [certificatePanelShowHelp:](#) (page 16)
- [helpAnchor](#) (page 11)

Declared In

SFCertificatePanel.h

setPolicies:

Specifies one or more policies that apply to the displayed certificates.

- (void)setPolicies:(id)*policies*

Parameters

policies

The policies to use when evaluating the certificates’ status. You can pass either a `SecPolicyRef` object or an `NSArray` (containing one or more `SecPolicyRef` instances) in this parameter. If *policies* is set to `nil`, the Apple X.509 Basic Policy is used.

Discussion

Applications typically display a certificate panel in the context of a specific use, such as SSL or S/MIME. You should set only the policy references that apply to your intended use. See “AppleX509TP Trust Policies” for a list of policies and object identifiers provided by the AppleX509TP module.

Availability

Mac OS X v10.4

See Also

- [policies](#) (page 12)

Declared In

SFCertificatePanel.h

setShowsHelp:

Displays a Help button in the sheet or panel.

- (void)setShowsHelp:(BOOL)showsHelp

Parameters

showsHelp

Set to YES to display the help button. The help button is hidden by default.

Discussion

When a user clicks the help button, the certificate panel first checks the delegate for a `certificatePanelShowHelp:` method. If the delegate does not implement such a method, or the delegate method returns NO, then the `NSHelpManager` method `openHelpAnchor:inBook:` is called with a nil book and the anchor specified by the `setHelpAnchor:` method. An exception is raised if the delegate returns NO and there is no help anchor set.

Availability

Mac OS X v10.4

See Also

- [certificatePanelShowHelp:](#) (page 16)
- [setHelpAnchor:](#) (page 14)
- `openHelpAnchor:inBook:(NSHelpManager)`
- [showsHelp](#) (page 15)

Declared In

SFCertificatePanel.h

showsHelp

Indicates whether the help button is currently set to be displayed.

- (BOOL)showsHelp

Discussion

This method returns YES if the help button is currently set to be displayed.

Availability

Mac OS X v10.4

See Also

- [setShowsHelp:](#) (page 15)

Declared In

SFCertificatePanel.h

Delegate Methods

certificatePanelShowHelp:

Implements custom help behavior for the modal panel.

- (BOOL)certificatePanelShowHelp:(SFCertificatePanel *)*sender*

Parameters

sender

The certificate panel for which to implement custom help.

Discussion

You can use this delegate method to implement custom help if you call the `setShowsHelp:` method to display a help button in the sheet or panel. If you are not implementing custom help, do not implement this method.

Availability

Mac OS X v10.4

See Also

- [setShowsHelp:](#) (page 15)
- `setDelegate:` (NSWindow)

Declared In

SFCertificatePanel.h

Document Revision History

This table describes the changes to *SFCertificatePanel Class Reference*.

Date	Notes
2006-05-23	First publication of this content as a separate document.

REVISION HISTORY

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