
Socket Name Server Utilities Reference

Core Foundation



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Socket Name Server Utilities Reference

Framework:	CoreFoundation/CoreFoundation.h
Declared in	CFSocket.h

Overview

Name server functionality is currently inoperable in Mac OS X.

Functions

CFSocketCopyRegisteredSocketSignature

Returns a socket signature registered with a CFSocket name server.

```
CFSocketError CFSocketCopyRegisteredSocketSignature (  
    const CFSocketSignature *nameServerSignature,  
    CFTimeInterval timeout,  
    CFStringRef name,  
    CFSocketSignature *signature,  
    CFDataRef *nameServerAddress  
);
```

Parameters

nameServerSignature

The socket signature for the name server. If NULL, this function contacts the default server, which is assumed to be a local process using TCP/IP to listen on the port number returned from [CFSocketGetDefaultNameRegistryPortNumber](#) (page 7). If *nameServerSignature* is incomplete, the missing values are replaced with the default server's values, if appropriate.

timeout

The time to wait for the server to accept a connection and to reply to the registration request.

name

The name of the registered socket signature to retrieve.

signature

A pointer to a CFSocketSignature structure into which the retrieved socket signature is copied.

nameServerAddress

A pointer to a CFData object into which the name server's address is copied. Pass NULL if you do not want the server's address.

Return Value

An error code indicating success or failure.

Discussion

Once you have the socket signature, you can open a connection to that socket with `CFSocketCreateConnectedToSocketSignature`.

Availability

Available in Mac OS X v10.0 and later.

Declared In

`CFSocket.h`

CFSocketCopyRegisteredValue

Returns a value registered with a CFSocket name server.

```
CFSocketError CFSocketCopyRegisteredValue (
    const CFSocketSignature *nameServerSignature,
    CFTimeInterval timeout,
    CFStringRef name,
    CFPropertyListRef *value,
    CFDataRef *nameServerAddress
);
```

Parameters

nameServerSignature

The socket signature for the name server. If `NULL`, this function contacts the default server, which is assumed to be a local process using TCP/IP to listen on the port number returned from [CFSocketGetDefaultNameRegistryPortNumber](#) (page 7). If *nameServerSignature* is incomplete, the missing values are replaced with the default server's values, if appropriate.

timeout

The time to wait for the server to accept a connection and to reply to the registration request.

name

The name of the registered value to return.

value

A pointer to the property list object into which the retrieved value should be copied.

nameServerAddress

A pointer to a `CFData` object into which the name server's address is copied. Pass `NULL` if you do not want the server's address.

Return Value

An error code indicating success or failure.

Availability

Available in Mac OS X v10.0 and later.

Declared In

`CFSocket.h`

CFSocketGetDefaultNameRegistryPortNumber

Returns the default port number with which to connect to a CFSocket name server.

```
UInt16 CFSocketGetDefaultNameRegistryPortNumber (
    void
);
```

Return Value

The default port number with which to connect to a CFSocket name server.

Discussion

If you do not provide a name server signature or leave out the socket address in the signature when calling one of the name registry functions, such as [CFSocketRegisterSocketSignature](#) (page 7), the returned port number is used for the connection.

Availability

Available in Mac OS X v10.0 and later.

Declared In

CFSocket.h

CFSocketRegisterSocketSignature

Registers a socket signature with a CFSocket name server.

```
CFSocketError CFSocketRegisterSocketSignature (
    const CFSocketSignature *nameServerSignature,
    CFTimeInterval timeout,
    CFStringRef name,
    const CFSocketSignature *signature
);
```

Parameters

nameServerSignature

The socket signature for the name server. If NULL, this function contacts the default server, which is assumed to be a local process using TCP/IP to listen on the port number returned from [CFSocketGetDefaultNameRegistryPortNumber](#) (page 7). If *nameServerSignature* is incomplete, the missing values are replaced with the default server's values, if appropriate.

timeout

The time to wait for the server to accept a connection and to reply to the registration request.

name

The name with which to register *signature*.

signature

The socket signature to register.

Return Value

An error code indicating success or failure.

Discussion

Once a socket signature is registered, other processes can retrieve it with [CFSocketCopyRegisteredSocketSignature](#) (page 5) and then open a connection to your socket using [CFSocketCreateConnectedToSocketSignature](#).

To remove a registered socket signature from the name server, use [CFSocketUnregister](#) (page 9).

Availability

Available in Mac OS X v10.0 and later.

Declared In

CFSocket.h

CFSocketRegisterValue

Registers a property-list value with a CFSocket name server.

```
CFSocketError CFSocketRegisterValue (
    const CFSocketSignature *nameServerSignature,
    CFTimeInterval timeout,
    CFStringRef name,
    CFPropertyListRef value
);
```

Parameters

nameServerSignature

The socket signature for the name server. If `NULL`, this function contacts the default server, which is assumed to be a local process using TCP/IP to listen on the port number returned from [CFSocketGetDefaultNameRegistryPortNumber](#) (page 7). If *nameServerSignature* is incomplete, the missing values are replaced with the default server's values, if appropriate.

timeout

The time to wait for the server to accept a connection and to reply to the registration request.

name

The name with which to register *value*.

value

The property-list value to register.

Return Value

An error code indicating success or failure.

Discussion

To remove a registered value from the name server, use [CFSocketUnregister](#) (page 9).

Availability

Available in Mac OS X v10.0 and later.

Declared In

CFSocket.h

CFSocketSetDefaultNameRegistryPortNumber

Sets the default port number with which to connect to a CFSocket name server.


```
void CFSocketSetDefaultNameRegistryPortNumber (
    UInt16 port
);
```

Parameters*port*

The port number to use to connect to the CFSocket name server.

Discussion

If you do not provide a name server signature or leave out the socket address in the signature when calling one of the name registry functions, such as [CFSocketRegisterSocketSignature](#) (page 7), *port* will be used for the connection.

Availability

Available in Mac OS X v10.0 and later.

Declared In

CFSocket.h

CFSocketUnregister

Unregisters a value or socket signature with a CFSocket name server.

```
CFSocketError CFSocketUnregister (
    const CFSocketSignature *nameServerSignature,
    CFTimeInterval timeout,
    CFStringRef name
);
```

Parameters*nameServerSignature*

The socket signature for the name server. If NULL, this function contacts the default server, which is assumed to be a local process using TCP/IP to listen on the port number returned from [CFSocketGetDefaultNameRegistryPortNumber](#) (page 7). If *nameServerSignature* is incomplete, the missing values are replaced with the default server's values, if appropriate.

timeout

The time to wait for the server to accept a connection and to reply to the registration request.

name

The name of the property-list value or socket signature to unregister.

Return Value

An error code indicating success or failure.

Discussion

The value being unregistered was previously registered with [CFSocketRegisterValue](#) (page 8) or [CFSocketRegisterSocketSignature](#) (page 7).

Availability

Available in Mac OS X v10.0 and later.

Declared In

CFSocket.h

Constants

CFSocket Name Server Keys

Not used.

```
const CFStringRef kCFSocketCommandKey;
const CFStringRef kCFSocketNameKey;
const CFStringRef kCFSocketValueKey;
const CFStringRef kCFSocketResultKey;
const CFStringRef kCFSocketErrorKey;
const CFStringRef kCFSocketRegisterCommand;
const CFStringRef kCFSocketRetrieveCommand;
```

Constants

kCFSocketCommandKey

Not used.

Available in Mac OS X v10.0 and later.

Declared in CFSocket.h.

kCFSocketNameKey

Not used.

Available in Mac OS X v10.0 and later.

Declared in CFSocket.h.

kCFSocketValueKey

Not used.

Available in Mac OS X v10.0 and later.

Declared in CFSocket.h.

kCFSocketResultKey

Not used.

Available in Mac OS X v10.0 and later.

Declared in CFSocket.h.

kCFSocketErrorKey

Not used.

Available in Mac OS X v10.0 and later.

Declared in CFSocket.h.

kCFSocketRegisterCommand

Not used.

Available in Mac OS X v10.0 and later.

Declared in CFSocket.h.

kCFSocketRetrieveCommand

Not used.

Available in Mac OS X v10.0 and later.

Declared in CFSocket.h.

Declared In

CFSocket.h

Document Revision History

This table describes the changes to *Socket Name Server Utilities Reference*.

Date	Notes
2006-10-27	Corrected declarations of <code>kCFSocketRegisterCommand</code> and <code>kCFSocketRetrieveCommand</code> .
2005-11-09	Removed reference to retired document.
2005-08-11	Cosmetic changes to conform to documentation guidelines.
2003-01-01	First version of this document.

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