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# NSSocketPortNameServer Class Reference

[Cocoa](#) > [Interapplication Communication](#)



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# NSSocketPortNameServer Class Reference

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<b>Inherits from</b>	NSPortNameServer : NSObject
<b>Conforms to</b>	NSObject (NSObject)
<b>Framework</b>	/System/Library/Frameworks/Foundation.framework
<b>Availability</b>	Available in Mac OS X v10.0 and later.
<b>Companion guide</b>	Distributed Objects Programming Topics
<b>Declared in</b>	NSPortNameServer.h

## Overview

This port name server takes and returns instances of `NSSocketPort`.

Port removal functionality is supported by the `removePortForName:` (page 10) method and should be used to remove invalid socket ports.

Unlike the other port name servers, `NSSocketPortNameServer` can operate over a network. By registering your socket ports, you make them available to other computers on the local network without hard-coding the TCP port numbers. Clients just need to know the name of the port.

`NSPortNameServer` is implemented using `NSNetService` and registers ports in the local network domain. The registered name of a port must be unique within the local domain, not just the local host. The name server only supports TCP/IP (either IPv4 or IPv6) sockets.

**Note:** Prior to Mac OS X v10.2, `NSSocketPortNameServer` was inoperable.

## Tasks

### Getting the Server Object

+ `sharedInstance` (page 6)

Returns the shared socket port name server.

## Looking Up Ports

- [portForName:](#) (page 7)  
Looks up and returns the port registered under the specified name on the local host.
- [portForName:host:](#) (page 7)  
Looks up and returns the port registered under the specified name on a specified host.
- [portForName:host:nameServerPortNumber:](#) (page 8)  
Looks up and returns the port registered under the specified name on a specified host.

## Registering and Removing Ports

- [registerPort:name:](#) (page 9)  
Registers a given port as a network service with the specified name in the local domain.
- [registerPort:name:nameServerPortNumber:](#) (page 9)  
Registers a given port as a network service with the specified name in the local domain.
- [removePortForName:](#) (page 10)  
Unregisters the port for a given name on the local host.

## Configuring the Default Port Number

- [defaultNameServerPortNumber](#) (page 7)  
Returns the port number used to contact the name server.
- [setDefaultNameServerPortNumber:](#) (page 10)  
Sets the default port number used to contact the name server.

## Class Methods

### sharedInstance

Returns the shared socket port name server.

```
+ (id)sharedInstance
```

### Return Value

The single instance of `NSSocketPortNameServer` with which you register and look up `NSSocketPort` objects.

### Availability

Available in Mac OS X v10.0 and later.

### Declared In

```
NSPortNameServer.h
```

## Instance Methods

### defaultNameServerPortNumber

Returns the port number used to contact the name server.

- (uint16\_t)defaultNameServerPortNumber

#### Return Value

The port number used to contact the name server. This value is currently ignored.

#### Availability

Available in Mac OS X v10.0 and later.

#### See Also

- [setDefaultNameServerPortNumber:](#) (page 10)

#### Declared In

NSPortNameServer.h

### portForName:

Looks up and returns the port registered under the specified name on the local host.

- (NSPort \*)portForName:(NSString \*)portName

#### Parameters

*portName*

The name of the desired port.

#### Return Value

The port associated with *portName* on the local host. Returns `nil` if no such port exists.

#### Discussion

Invokes [portForName:host:nameServerPortNumber:](#) (page 8) with `nil` as the host name and 0 as the name server port number.

#### Availability

Available in Mac OS X v10.0 and later.

#### Declared In

NSPortNameServer.h

### portForName:host:

Looks up and returns the port registered under the specified name on a specified host.

- (NSPort \*)portForName:(NSString \*)portName host:(NSString \*)hostName

**Parameters***portName*

The name of the desired port.

*hostName*The name of the host. *hostName* is an Internet domain name (for example, "sales.anycorp.com"). If *hostName* is *nil* or empty, the local host is checked.**Return Value**The port associated with *portName* on the host *hostName*. Returns *nil* if no such port exists.**Discussion**Invokes [portForName:host:nameServerPortNumber:](#) (page 8) with 0 as the name server port number.**Availability**

Available in Mac OS X v10.0 and later.

**Declared In**

NSPortNameServer.h

**portForName:host:nameServerPortNumber:**

Looks up and returns the port registered under the specified name on a specified host.

```
- (NSPort *)portForName:(NSString *)portName host:(NSString *)hostName
  nameServerPortNumber:(uint16_t)portNumber
```

**Parameters***portName*

The name of the desired port.

*hostName*The name of the host. *hostName* is an Internet domain name (for example, "sales.anycorp.com") or IP address (IPv4 or IPv6). If *hostName* is *nil* or empty, the local host is checked. If *hostName* is @"\*", all hosts on the local network are checked.*portNumber*The *portNumber* parameter is ignored.**Return Value**The port associated with *portName* on the host *hostName*. Returns *nil* if no such port exists.**Availability**

Available in Mac OS X v10.0 and later.

**See Also**

- [portForName:](#) (page 7)
- [portForName:host:](#) (page 7)
- [registerPort:name:nameServerPortNumber:](#) (page 9)

**Declared In**

NSPortNameServer.h



## registerPort:name:

Registers a given port as a network service with the specified name in the local domain.

```
- (BOOL)registerPort:(NSPort *)port name:(NSString *)portName
```

### Parameters

*port*

The port to make available.

*portName*

The name for the port.

### Return Value

YES if successful, NO otherwise.

### Discussion

Invokes [registerPort:name:nameServerPortNumber:](#) (page 9) with 0 as the name server port number.

### Availability

Available in Mac OS X v10.2 and later.

### Declared In

NSSocketPortNameServer.h

## registerPort:name:nameServerPortNumber:

Registers a given port as a network service with the specified name in the local domain.

```
- (BOOL)registerPort:(NSPort *)port name:(NSString *)portName
  nameServerPortNumber:(uint16_t)portNumber
```

### Parameters

*port*

The port to make available.

*portName*

The name for the port.

*portNumber*

The *portNumber* parameter is ignored.

### Return Value

YES if successful, NO otherwise.

### Special Considerations

If your application has already registered a port under the name *portName*, this method replaces it with *port*.

If the local domain already has a port named *portName* registered, this method could return YES before the name collision is detected. To detect a potential name collision, you can invoke [portForName:host:](#) (page 7) with a *host* argument of @"\*" to test if *portName* is already taken. This, however, leaves a race condition wherein another process can register a port under *portName* after [portForName:host:](#) (page 7) returns but before you register *port*. If this is an unacceptable risk for your application, you can also invoke [portForName:host:](#) (page 7) some finite time after registering your port to test if you get the same port back.

**Availability**

Available in Mac OS X v10.0 and later.

**See Also**

- [portForName:host:nameServerPortNumber:](#) (page 8)

**Declared In**

NSPortNameServer.h

**removePortForName:**

Unregisters the port for a given name on the local host.

- (BOOL)removePortForName:(NSString \*)*portName*

**Parameters**

*portName*

The name of the port to unregister.

**Return Value**

YES if successful, otherwise NO.

**Discussion**

If the operation is successful, the port can no longer be looked up using the name *portName*. Other applications that already have a reference to the port can continue to use it until it becomes invalid.

**Availability**

Available in Mac OS X v10.0 and later.

**Declared In**

NSPortNameServer.h

**setDefaultNameServerPortNumber:**

Sets the default port number used to contact the name server.

- (void)setDefaultNameServerPortNumber:(uint16\_t)*portNumber*

**Parameters**

*portNumber*

The new port number used to contact the name server. This value is currently ignored.

**Availability**

Available in Mac OS X v10.0 and later.

**See Also**

- [defaultNameServerPortNumber](#) (page 7)

**Declared In**

NSPortNameServer.h

# Document Revision History

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

Date	Notes
2007-02-26	Revised task headings.
2006-05-23	First publication of this content as a separate document.

## REVISION HISTORY

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