# NSDictionaryController Class Reference

**Cocoa > Data Management**

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# NSDictionaryController Class Reference

| | |
|---|---|
| **Inherits from** | NSArrayController : NSObjectController : NSController : NSObject |
| **Conforms to** | NSCoding (NSController)<br>NSObject (NSObject) |
| **Framework** | /System/Library/Frameworks/AppKit.framework |
| **Availability** | Available in Mac OS X v10.5 and later. |
| **Companion guide** | Cocoa Bindings Programming Topics |
| **Declared in** | NSDictionaryController.h<br>NSKeyValueBinding.h |

## Overview

`NSDictionaryController` is a bindings compatible class that manages display and editing of the contents of an `NSDictionary` object. `NSDictionaryController` transforms the contents of a dictionary into an array of key-value pairs that can be bound to user interface items such as the columns of an `NSTableView`.

The content of an `NSDictionaryController` instance is specified using the inherited method `setContent:` or by binding an `NSDictionary` instance to the `contentDictionary` binding. New key/value pairs inserted into the dictionary are created using the newObject method. The initial key name is set to the string returned by `initialKey` (page 8) (specified using `setInitialKey:` (page 11) or the `initialKey` binding). The initial value object is set to the object returned by `initialValue` (page 8) (specified using `setInitialValue:` (page 11) or the `initialValue` binding). The initial key name is copied to the newly inserted object, while the object returned by `initialValue` (page 8) is simply retained. As new items are inserted the controller enumerates the initial key name, resulting in key names such as "key", "key1", "key2", and so on. This behavior can be customized by overriding `newObject` (page 10).

An `NSDictionaryController` instance can be configured to exclude specified keys in a dictionary from being returned by `arrangedObjects` (page 7) using the `setExcludedKeys:` (page 10) method or by binding an array of key names to the `excludedKeys` binding. Similarly, you can specify an array of key names that are always included in the arranged objects, even if they are not present in the content dictionary, using the `setIncludedKeys:` (page 10) method or the `includedKeys` binding.

`NSDictionaryController` supports providing localized key names for the keys in the dictionary, allowing a user-friendly representation of the key name to be displayed. The localized key names are specified by a dictionary (using `setLocalizedKeyDictionary:` (page 11) or the `localizedKeyDictionary` binding) or by providing a strings table (using `setLocalizedKeyTable:` (page 12)).


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The `arrangedObjects` (page 7) method returns an array of objects that implement the `NSDictionaryControllerKeyValuePair` informal protocol. User interface controls are bound to the arranged objects array using key paths such as: `arrangedObjects.key` (displays the key name), `arrangedObjects.value` (displays the value for the key), or `arrangedObjects.localizedKey` (displays the localized key name). See *NSDictionaryControllerKeyValuePair Protocol Reference* for more information.

**Note:** You must enable the "Validates Immediately" option for the value binding of all controls that edit the key names or values returned by `arrangedObjects` (page 7).

# Adopted Protocols

NSCoding
- `encodeWithCoder:`
- `initWithCoder:`

# Tasks

## Arranging Objects

- `arrangedObjects` (page 7)
  Returns an array containing the objects that represent the receiver's content.

## Creating New Entries

- `newObject` (page 10)
  Creates and returns a new key-value pair to represent an entry in the content dictionary.

## Localizing Key Names

- `setLocalizedKeyDictionary:` (page 11)
  Sets the localized key names that are displayed by the receiver in place of the key names.
- `localizedKeyDictionary` (page 9)
  Returns the receiver's localization dictionary.
- `localizedKeyTable` (page 9)
  Returns the strings file used to localize key names.
- `setLocalizedKeyTable:` (page 12)
  Specifies the strings file used to localize key names.


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### Keys to Display

- `setIncludedKeys:` (page 10)
  Sets the key names that are represented by a key-value pair, even if they are not present in the receiver's content dictionary.
- `includedKeys` (page 8)
  Returns an array containing the key names that are represented by a key-value pair, even if they are not present in the receiver's content dictionary.
- `setExcludedKeys:` (page 10)
  Sets the key names that are never displayed in the user interface items bound to the receiver.
- `excludedKeys` (page 7)
  Returns an array containing the key names that are never displayed in the user interface items bound to the receiver.

### Setting Initial Key and Values

- `setInitialKey:` (page 11)
  Sets the string used as the initial key name for a newly inserted item.
- `initialKey` (page 8)
  Returns the string used as the initial key name for a newly inserted item.
- `setInitialValue:` (page 11)
  Sets the string used as the initial value for a newly inserted item.
- `initialValue` (page 8)
  Returns the string used as the initial value for a newly inserted item.

## Instance Methods

### arrangedObjects

Returns an array containing the objects that represent the receiver's content.

```
- (id)arrangedObjects
```

**Return Value**
An array of objects that implement the `NSDictionaryControllerKeyValuePair` informal protocol. See *NSDictionaryControllerKeyValuePair Protocol Reference* for more information.

### excludedKeys

Returns an array containing the key names that are never displayed in the user interface items bound to the receiver.

```
- (NSArray *)excludedKeys
```


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**Return Value**
An array containing the key names.

**Availability**
Available in Mac OS X v10.5 and later.

**See Also**
`- setExcludedKeys:` (page 10)

**Declared In**
`NSDictionaryController.h`

## includedKeys

Returns an array containing the key names that are represented by a key-value pair, even if they are not present in the receiver's content dictionary.

```
- (NSArray *)includedKeys
```

**Return Value**
An array containing the key names.

**Availability**
Available in Mac OS X v10.5 and later.

**See Also**
`- setIncludedKeys:` (page 10)

**Declared In**
`NSDictionaryController.h`

## initialKey

Returns the string used as the initial key name for a newly inserted item.

```
- (NSString *)initialKey
```

**Return Value**
The key name.

**Availability**
Available in Mac OS X v10.5 and later.

**See Also**
`- setInitialKey:` (page 11)

**Declared In**
`NSDictionaryController.h`

## initialValue

Returns the string used as the initial value for a newly inserted item.


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```
- (id)initialValue
```

**Return Value**
The value.

**Availability**
Available in Mac OS X v10.5 and later.

**See Also**
- `setInitialValue:` (page 11)

**Declared In**
`NSDictionaryController.h`

## localizedKeyDictionary

Returns the receiver's localization dictionary.

```
- (NSDictionary *)localizedKeyDictionary
```

**Return Value**
A dictionary containing localized string values for the key names.

**Availability**
Available in Mac OS X v10.5 and later.

**See Also**
- `setLocalizedKeyDictionary:` (page 11)

**Declared In**
`NSDictionaryController.h`

## localizedKeyTable

Returns the strings file used to localize key names.

```
- (NSString *)localizedKeyTable
```

**Return Value**
A string that specifies the string table to use when localizing key names.

**Availability**
Available in Mac OS X v10.5 and later.

**See Also**
- `setLocalizedKeyTable:` (page 12)

**Declared In**
`NSDictionaryController.h`


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## newObject

Creates and returns a new key-value pair to represent an entry in the content dictionary.

```
- (id)newObject
```

**Return Value**
An object that represents the key-value pair. The object must not be autoreleased, and must implement the NSDictionaryControllerKeyValuePair informal protocol

**Discussion**
This method is invoked for insertions of new key-value pairs, as well as transforming existing dictionary entries into key-value pairs for display. Objects returned by this method must implement the NSDictionaryControllerKeyValuePair informal protocol.

**Special Considerations**

Subclass implementations must ensure that the object returned by `newObject` is not autorelased.

**Availability**
Available in Mac OS X v10.5 and later.

**Declared In**
`NSDictionaryController.h`

## setExcludedKeys:

Sets the key names that are never displayed in the user interface items bound to the receiver.

```
- (void)setExcludedKeys:(NSArray *)keys
```

**Parameters**
*keys*
An array containing the key names.

**Availability**
Available in Mac OS X v10.5 and later.

**See Also**
- excludedKeys (page 7)

**Declared In**
`NSDictionaryController.h`

## setIncludedKeys:

Sets the key names that are represented by a key-value pair, even if they are not present in the receiver's content dictionary.

```
- (void)setIncludedKeys:(NSArray *)keys
```

**Parameters**
*keys*
An array containing the key names.


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**Availability**
Available in Mac OS X v10.5 and later.

**See Also**
- `includedKeys` (page 8)

**Declared In**
`NSDictionaryController.h`

## setInitialKey:

Sets the string used as the initial key name for a newly inserted item.

```
- (void)setInitialKey:(NSString *)key
```

**Parameters**

*key*
The key name. The string is copied by the receiver.

**Availability**
Available in Mac OS X v10.5 and later.

**See Also**
- `initialKey` (page 8)

**Declared In**
`NSDictionaryController.h`

## setInitialValue:

Sets the string used as the initial value for a newly inserted item.

```
- (void)setInitialValue:(id)value
```

**Parameters**

*value*
The initial value.

**Availability**
Available in Mac OS X v10.5 and later.

**See Also**
- `initialValue` (page 8)

**Declared In**
`NSDictionaryController.h`

## setLocalizedKeyDictionary:

Sets the localized key names that are displayed by the receiver in place of the key names.

```
- (void)setLocalizedKeyDictionary:(NSDictionary *)dictionary
```


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**Parameters**

*dictionary*

A dictionary containing the localized key name strings.

**Discussion**

The dictionary contains the key names as the keys, and the localized key names as the corresponding values.

**Availability**

Available in Mac OS X v10.5 and later.

**See Also**

- localizedKeyDictionary (page 9)

**Declared In**

NSDictionaryController.h

### setLocalizedKeyTable:

Specifies the strings file used to localize key names.

```
- (void)setLocalizedKeyTable:(NSString *)stringsFile
```

**Parameters**

*stringsFile*

Specifies the string table to use when localizing key names.

**Discussion**

The string table must reside within the application's resource . See Strings Files in Introduction to Internationalization Programming Topics.

**Availability**

Available in Mac OS X v10.5 and later.

**See Also**

- setLocalizedKeyDictionary: (page 11)- localizedKeyDictionary (page 9)

**Declared In**

NSDictionaryController.h

## Constants

### Exposed Bindings

The following constants are used to specify a binding to `bind:toObject:withKeyPath:options:`, `infoForBinding:`, `unbind:`, and `valueClassForBinding:`. See the *Cocoa Bindings Reference* for more information.


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```
NSString *NSContentDictionaryBinding;
NSString *NSIncludedKeysBinding;
NSString *NSExcludedKeysBinding;
NSString *NSLocalizedKeyDictionaryBinding;
NSString *NSInitialKeyBinding;
NSString *NSInitialValueBinding;
```

**Constants**

`NSContentDictionaryBinding`

A dictionary used as the content dictionary.

Available in Mac OS X v10.5 and later.

Declared in `NSKeyValueBinding.h`.

`NSIncludedKeysBinding`

An array containing the key-value pairs always represented by the receiver.

Available in Mac OS X v10.5 and later.

Declared in `NSKeyValueBinding.h`.

`NSExcludedKeysBinding`

An array containing the key names that are never displayed in the user interface items bound to the receiver.

Available in Mac OS X v10.5 and later.

Declared in `NSKeyValueBinding.h`.

`NSLocalizedKeyDictionaryBinding`

A dictionary containing the localized key names that are displayed by the receiver in place of the key names.

Available in Mac OS X v10.5 and later.

Declared in `NSKeyValueBinding.h`.

`NSInitialKeyBinding`

A string used as the initial key name for newly inserted items.

Available in Mac OS X v10.5 and later.

Declared in `NSKeyValueBinding.h`.

`NSInitialValueBinding`

A string used as the initial value for newly inserted items.

Available in Mac OS X v10.5 and later.

Declared in `NSKeyValueBinding.h`.

**Declared In**

`AppKit/NSDictionaryController.h`


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# Document Revision History

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

| Date | Notes |
| --- | --- |
| 2008-06-05 | Corrected typos. |
| 2006-07-01 | New document that describes the class used with Cocoa bindings to manage a dictionary of objects. |



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Document Revision History



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