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# NSKeyValueBindingCreation Protocol Reference

Data Management: Event Handling





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# NSKeyValueBindingCreation Protocol Reference

(informal protocol)

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<b>Framework</b>	/System/Library/Frameworks/UIKit.framework
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<b>Companion guides</b>	Cocoa Bindings Programming Topics Cocoa Bindings Reference

## Overview

The `NSKeyValueBindingCreation` informal protocol provides methods to create and remove bindings between view objects and controllers or controllers and model objects. In addition, it provides a means for a view subclass to advertise the bindings that it exposes. This informal protocol is implemented by `NSObject` and its methods can be overridden by view and controller subclasses.

When a new binding is created it relates the receiver's binding (for example, a property of the view object) to a property of the observable object specified by a key path. When the value of the specified property of the observable object changes, the receiver is notified using the key-value observing mechanism. A binding also specifies binding options that can further customize how the observing and the observed objects interact.

Bindings are considered to be a property of the object which is bound, and all information related to bindings should be retained by the object. All standard bindings on UIKit objects (views, cells, table columns, controllers) unbind their bindings automatically when they are released, but if you create key-value bindings for other kind of objects, you need to make sure that you remove those bindings when you release them (observed objects don't retain their observers, so controllers/model objects might continue referencing and messaging the objects that was bound to them).

Bindings between objects are typically established in Interface Builder using the Bindings inspector. However, there are times it must be done programmatically, such as when establishing a binding between objects in different nib files.

`NSView` subclasses can expose additional key-value-coding/key-value-observing compliant properties as bindings by calling the class method `exposeBinding:` (page 6) for each of the properties. This is typically done in the class's `initialize` method. By exposing the bindings that an object supports and creating an Interface Builder palette, you can make instances of your own classes bindable in Interface Builder.

## Tasks

### Exposing Bindings

- + [exposeBinding:](#) (page 6)  
Exposes the specified *binding*, advertising its availability.
- [exposedBindings](#) (page 7)  
Returns an array containing the bindings exposed by the receiver.

### Managing Bindings

- [valueClassForBinding:](#) (page 9)  
Returns the class of the value that will be returned for the specified binding.
- [bind:toObject:withKeyPath:options:](#) (page 7)  
Establishes a binding between a given property of the receiver and the property of a given object specified by a given key path.
- [optionDescriptionsForBinding:](#) (page 8)  
Returns an array describing the options for the specified binding.
- [infoForBinding:](#) (page 8)  
Returns a dictionary describing the receiver's *binding*.
- [unbind:](#) (page 9)  
Removes a given binding between the receiver and a controller.

## Class Methods

### **exposeBinding:**

Exposes the specified *binding*, advertising its availability.

```
+ (void)exposeBinding:(NSString *)binding
```

#### **Parameters**

*binding*

The key path for the property to be exposed.

#### **Discussion**

The bound property will be accessed using key-value-coding compliant methods. This method is typically invoked in the class's `initialize` implementation.

Bindings exposed using `exposeBinding` will be exposed automatically in [exposedBindings](#) (page 7) unless that method explicitly filters them out, for example in subclasses.

#### **Availability**

Available in Mac OS X v10.3 and later.

**Declared In**

NSKeyValueBinding.h

## Instance Methods

### **bind:toObject:withKeyPath:options:**

Establishes a binding between a given property of the receiver and the property of a given object specified by a given key path.

```
- (void)bind:(NSString *)binding
  toObject:(id)observableController
 withKeyPath:(NSString *)keyPath
  options:(NSDictionary *)options
```

**Parameters***binding*

The key path for a property of the receiver previously exposed using the [exposeBinding:](#) (page 6) method.

*observableController*

The bound-to object.

*keyPath*

A key path to a property reachable from *observableController*. The elements in the path must be key-value observing compliant (see *Key-Value Observing Programming Guide*).

*options*

A dictionary containing options for the binding, such as placeholder objects or an `NSValueTransformer` identifier as described in [“Constants”](#) (page 10). This value is optional—pass `nil` to specify no options.

**Availability**

Available in Mac OS X v10.3 and later.

**See Also**

- [unbind:](#) (page 9)

**Related Sample Code**

[AnimatedTableView](#)

[Simple Bindings Adoption](#)

[Sketch+Accessibility](#)

**Declared In**

NSKeyValueBinding.h

### **exposedBindings**

Returns an array containing the bindings exposed by the receiver.

```
- (NSArray *)exposedBindings
```

**Return Value**

An array containing the bindings exposed by the receiver.

**Discussion**

A subclass can override this method to remove bindings that are exposed by a superclass that are not appropriate for the subclass.

**Availability**

Available in Mac OS X v10.3 and later.

**See Also**

+ [exposeBinding:](#) (page 6)

**Declared In**

NSKeyValueBinding.h

**infoForBinding:**

Returns a dictionary describing the receiver's *binding*.

```
- (NSDictionary *)infoForBinding:(NSString *)binding
```

**Parameters**

*binding*

The name of a binding.

**Return Value**

A dictionary with information about *binding*, or *nil* if the binding is not bound. The dictionary contains three key/value pairs: `NSObservedObjectKey:` object bound, `NSObservedKeyPathKey:` key path bound, `NSOptionsKey:` dictionary with the options and their values for the bindings.

**Discussion**

This method is mostly for use by subclasses which want to analyze the existing bindings of an object.

**Availability**

Available in Mac OS X v10.4 and later.

**Declared In**

NSKeyValueBinding.h

**optionDescriptionsForBinding:**

Returns an array describing the options for the specified binding.

```
- (NSArray *)optionDescriptionsForBinding:(NSString *)binding
```

**Parameters**

*binding*

The name of a binding

**Return Value**

Returns an array of `NSAttributeDescription` that describe the options for *binding*.

**Discussion**

The `NSAttributeDescription` instances in the array are used by Interface Builder to build the options editor user interface of the bindings inspector.

- The option name displayed for the option in the bindings inspector is based on the value of the `NSAttributeDescription` `methodName`.
- The type of editor displayed for the option in the bindings inspector is based on the value of the `NSAttributeDescription` `attributeType`.
- The default value displayed in the bindings inspector for the option is based on the value of the `NSAttributeDescription` `defaultValue`.

**Availability**

Available in Mac OS X v10.5 and later.

**Declared In**

`NSKeyValueBinding.h`

**unbind:**

Removes a given binding between the receiver and a controller.

```
- (void)unbind:(NSString *)binding
```

**Parameters**

*binding*

The name of a binding.

**Availability**

Available in Mac OS X v10.3 and later.

**See Also**

- [bind:toObject:withKeyPath:options:](#) (page 7)

**Declared In**

`NSKeyValueBinding.h`

**valueClassForBinding:**

Returns the class of the value that will be returned for the specified binding.

```
- (Class)valueClassForBinding:(NSString *)binding
```

**Parameters**

*binding*

The name of a binding.

**Return Value**

The class of the value that will be returned for *binding*.

**Discussion**

This method is used by Interface Builder to determine the appropriate transformers for a binding.

Implementation of this method is optional.

#### Availability

Available in Mac OS X v10.3 and later.

#### Declared In

NSKeyValueBinding.h

## Constants

### Binding Options

The following values are used as keys in the options dictionary passed to the [bind:toObject:withKeyPath:options:](#) (page 7) method. These keys are also used in the dictionary returned as the `NSOptionsKey` value of [infoForBinding:](#) (page 8). See the *Cocoa Bindings Reference* for more information.

```
NSString *NSAllowsEditingMultipleValuesSelectionBindingOption;
NSString *NSAllowsNullArgumentBindingOption;
NSString *NSAlwaysPresentsApplicationModalAlertsBindingOption;
NSString *NSConditionallySetsEditableBindingOption;
NSString *NSConditionallySetsEnabledBindingOption;
NSString *NSConditionallySetsHiddenBindingOption;
NSString *NSContinuouslyUpdatesValueBindingOption;
NSString *NSCreatesSortDescriptorBindingOption;
NSString *NSDeletesObjectsOnRemoveBindingsOption;
NSString *NSDisplayNameBindingOption;
NSString *NSDisplayPatternBindingOption;
NSString *NSContentPlacementTagBindingOption;
NSString *NSHandlesContentAsCompoundValueBindingOption;
NSString *NSInsertsNullPlaceholderBindingOption;
NSString *NSInvokesSeparatelyWithArrayObjectsBindingOption;
NSString *NSMultipleValuesPlaceholderBindingOption;
NSString *NSNoSelectionPlaceholderBindingOption;
NSString *NSNotApplicablePlaceholderBindingOption;
NSString *NSNullPlaceholderBindingOption;
NSString *NSRaisesForNotApplicableKeysBindingOption;
NSString *NSPredicateFormatBindingOption;
NSString *NSSelectorNameBindingOption;
NSString *NSSelectsAllWhenSettingContentBindingOption;
NSString *NSValidatesImmediatelyBindingOption;
NSString *NSValueTransformerNameBindingOption;
NSString *NSValueTransformerBindingOption;
```

#### Constants

`NSAllowsEditingMultipleValuesSelectionBindingOption`

An `NSNumber` object containing a Boolean value that determines if the binding allows editing when the value represents a multiple selection.

Available in Mac OS X v10.4 and later.

Declared in `NSKeyValueBinding.h`.

**NSAlwaysPresentsApplicationModalAlertsBindingOption**

An `NSNumber` object containing a Boolean value that determines if validation and error alert panels displayed as a result of this binding are displayed as application modal alerts. If `YES`, then the alerts are displayed application modal, otherwise they are displayed as sheets.

Available in Mac OS X v10.4 and later.

Declared in `NSKeyValueBinding.h`.

**NSAllowsNullArgumentBindingOption**

An `NSNumber` object containing a Boolean value that determines if the argument bindings allows passing argument values of `nil`.

Available in Mac OS X v10.4 and later.

Declared in `NSKeyValueBinding.h`.

**NSConditionallySetsEditableBindingOption**

An `NSNumber` object containing a Boolean value that determines if the editable state of the user interface item is automatically configured based on the controller's selection.

Available in Mac OS X v10.4 and later.

Declared in `NSKeyValueBinding.h`.

**NSConditionallySetsEnabledBindingOption**

An `NSNumber` object containing a Boolean value that determines if the enabled state of the user interface item is automatically configured based on the controller's selection.

Available in Mac OS X v10.4 and later.

Declared in `NSKeyValueBinding.h`.

**NSConditionallySetsHiddenBindingOption**

An `NSNumber` object containing a Boolean value that determines if the hidden state of the user interface item is automatically configured based on the controller's selection.

Available in Mac OS X v10.4 and later.

Declared in `NSKeyValueBinding.h`.

**NSContentPlacementTagBindingOption**

An `NSNumber` object specifying the tag id of the popup menu item to replace with the content of the array. This allows you to use a popup menu that contains both static and bindings generated items.

Available in Mac OS X v10.5 and later.

Declared in `NSKeyValueBinding.h`.

**NSContinuouslyUpdatesValueBindingOption**

An `NSNumber` object containing a Boolean value that determines whether the value of the binding is updated as edits are made to the user interface item or is updated only when the user interface item resigns as the responder.

Available in Mac OS X v10.4 and later.

Declared in `NSKeyValueBinding.h`.

**NSCreatesSortDescriptorBindingOption**

An `NSNumber` object containing a Boolean value that determines if a sort descriptor is created for a table column.

If this value is `NO`, then the table column does not allow sorting.

Available in Mac OS X v10.4 and later.

Declared in `NSKeyValueBinding.h`.

`NSDeletesObjectsOnRemoveBindingsOption`

An `NSNumber` object containing a Boolean value that determines if an object is deleted from the managed context immediately upon being removed from a relationship.

Available in Mac OS X v10.4 and later.

Declared in `NSKeyValueBinding.h`.

`NSDisplayNameBindingOption`

An `NSString` object containing a human readable string to be displayed for a predicate.

Available in Mac OS X v10.4 and later.

Declared in `NSKeyValueBinding.h`.

`NSDisplayPatternBindingOption`

An `NSString` object that specifies a format string used to construct the final value of a string.

Available in Mac OS X v10.4 and later.

Declared in `NSKeyValueBinding.h`.

`NSHandlesContentAsCompoundValueBindingOption`

An `NSNumber` object containing a Boolean value that determines if the content is treated as a compound value.

Available in Mac OS X v10.4 and later.

Declared in `NSKeyValueBinding.h`.

`NSInsertsNullPlaceholderBindingOption`

An `NSNumber` object containing a Boolean value that determines if an additional item which represents `nil` is inserted into a matrix or pop-up menu before the items in the content array.

Available in Mac OS X v10.4 and later.

Declared in `NSKeyValueBinding.h`.

`NSInvokesSeparatelyWithArrayObjectsBindingOption`

An `NSNumber` object containing a Boolean value that determines whether the specified selector is invoked with the array as the argument or is invoked repeatedly with each array item as an argument.

Available in Mac OS X v10.4 and later.

Declared in `NSKeyValueBinding.h`.

`NSMultipleValuesPlaceholderBindingOption`

An object that is used as a placeholder when the key path of the bound controller returns the `NSMultipleValuesMarker` marker for a binding.

Available in Mac OS X v10.4 and later.

Declared in `NSKeyValueBinding.h`.

`NSNoSelectionPlaceholderBindingOption`

An object that is used as a placeholder when the key path of the bound controller returns the `NSNoSelectionMarker` marker for a binding.

Available in Mac OS X v10.4 and later.

Declared in `NSKeyValueBinding.h`.

`NSNotApplicablePlaceholderBindingOption`

An object that is used as a placeholder when the key path of the bound controller returns the `NSNotApplicableMarker` marker for a binding.

Available in Mac OS X v10.4 and later.

Declared in `NSKeyValueBinding.h`.

`NSNullPlaceholderBindingOption`

An object that is used as a placeholder when the key path of the bound controller returns `nil` for a binding.

Available in Mac OS X v10.4 and later.

Declared in `NSKeyValueBinding.h`.

`NSPredicateFormatBindingOption`

An `NSString` object containing the predicate pattern string for the predicate bindings. Use `$value` to refer to the value in the search field.

Available in Mac OS X v10.4 and later.

Declared in `NSKeyValueBinding.h`.

`NSRaisesForNotApplicableKeysBindingOption`

An `NSNumber` object containing a Boolean value that specifies if an exception is raised when the binding is bound to a key that is not applicable—for example when an object is not key-value coding compliant for a key.

Available in Mac OS X v10.4 and later.

Declared in `NSKeyValueBinding.h`.

`NSSelectorNameBindingOption`

An `NSString` object that specifies the method selector invoked by the target binding when the user interface item is clicked.

Available in Mac OS X v10.4 and later.

Declared in `NSKeyValueBinding.h`.

`NSSelectsAllWhenSettingContentBindingOption`

An `NSNumber` object containing a Boolean value that specifies if all the items in the array controller are selected when the content is set.

Available in Mac OS X v10.4 and later.

Declared in `NSKeyValueBinding.h`.

`NSValidatesImmediatelyBindingOption`

An `NSNumber` object containing a Boolean value that determines if the contents of the binding are validated immediately.

Available in Mac OS X v10.4 and later.

Declared in `NSKeyValueBinding.h`.

`NSValueTransformerNameBindingOption`

The value for this key is an identifier of a registered `NSValueTransformer` instance that is applied to the bound value.

Available in Mac OS X v10.4 and later.

Declared in `NSKeyValueBinding.h`.

`NSValueTransformerBindingOption`

An `NSValueTransformer` instance that is applied to the bound value.

Available in Mac OS X v10.4 and later.

Declared in `NSKeyValueBinding.h`.

## Binding Dictionary Keys

The following values are used as keys in the dictionary returned by `infoForBinding:` (page 8)

```
NSString *NSObservedObjectKey;  
NSString *NSObservedKeyPathKey;  
NSString *NSOptionsKey;
```

### Constants

`NSObservedObjectKey`

The object that is the observable controller of the binding.

Available in Mac OS X v10.4 and later.

Declared in `NSKeyValueBinding.h`.

`NSObservedKeyPathKey`

An `NSString` object containing the key path of the binding.

Available in Mac OS X v10.4 and later.

Declared in `NSKeyValueBinding.h`.

`NSOptionsKey`

An `NSDictionary` object containing key value pairs as specified in the options dictionary when the binding was created.

Available in Mac OS X v10.4 and later.

Declared in `NSKeyValueBinding.h`.

## Bindings

The following values are used to specify a binding to [bind:toObject:withKeyPath:options:](#) (page 7), [infoForBinding:](#) (page 8), [unbind:](#) (page 9) and [valueClassForBinding:](#) (page 9). See *Cocoa Bindings Reference* for more information.

```

NSString *NSAlignmentBinding;
NSString *NSAlternateImageBinding;
NSString *NSAlternateTitleBinding;
NSString *NSAnimateBinding;
NSString *NSAnimationDelayBinding;
NSString *NSArgumentBinding;
NSString *NSAttributedStringBinding;
NSString *NSContentArrayBinding;
NSString *NSContentArrayForMultipleSelectionBinding;
NSString *NSContentBinding;
NSString *NSContentDictionaryBinding;
NSString *NSContentHeightBinding;
NSString *NSContentObjectBinding;
NSString *NSContentObjectsBinding;
NSString *NSContentSetBinding;
NSString *NSContentValuesBinding;
NSString *NSContentWidthBinding;
NSString *NSCriticalValueBinding;
NSString *NSDataBinding;
NSString *NSDisplayPatternTitleBinding;
NSString *NSDisplayPatternValueBinding;
NSString *NSDocumentEditedBinding;
NSString *NSDoubleClickArgumentBinding;
NSString *NSDoubleClickTargetBinding;
NSString *NSEditableBinding;
NSString *NSEnabledBinding;
NSString *NSExcludedKeysBinding;
NSString *NSFilterPredicateBinding;
NSString *NSFontBinding;
NSString *NSFontBoldBinding;
NSString *NSFontFamilyNameBinding;
NSString *NSFontItalicBinding;
NSString *NSFontNameBinding;
NSString *NSFontSizeBinding;
NSString *NSHeaderTitleBinding;
NSString *NSHiddenBinding;
NSString *NSImageBinding;
NSString *NSIncludedKeysBinding;
NSString *NSInitialKeyBinding;
NSString *NSInitialValueBinding;
NSString *NSIsIndeterminateBinding;
NSString *NSLabelBinding;
NSString *NSLocalizedKeyDictionaryBinding;
NSString *NSManagedObjectContextBinding;
NSString *NSMaximumRecentsBinding;
NSString *NSMaxValueBinding;
NSString *NSMaxWidthBinding;
NSString *NSMinValueBinding;
NSString *NSMinWidthBinding;
NSString *NSMixedStateImageBinding;
NSString *NSOffStateImageBinding;
NSString *NSOnStateImageBinding;
NSString *NSPredicateBinding;
NSString *NSRecentSearchesBinding;
NSString *NSRepresentedFilenameBinding;
NSString *NSRowHeightBinding;
NSString *NSSelectedIdentifierBinding;
NSString *NSSelectedIndexBinding;

```

```

NSString *NSSelectedLabelBinding;
NSString *NSSelectedObjectBinding;
NSString *NSSelectedObjectsBinding;
NSString *NSSelectedTagBinding;
NSString *NSSelectedValueBinding;
NSString *NSSelectedValuesBinding;
NSString *NSSelectionIndexesBinding;
NSString *NSSelectionIndexPathsBinding;
NSString *NSSortDescriptorsBinding;
NSString *NSTargetBinding;
NSString *NSTextColorBinding;
NSString *NSTitleBinding;
NSString *NSToolTipBinding;
NSString *NSTransparentBinding;
NSString *NSValueBinding;
NSString *NSValuePathBinding;
NSString *NSValueURLBinding;
NSString *NSVisibleBinding;
NSString *NSWarningValueBinding;
NSString *NSWidthBinding;

```

### Constants

NSAlignmentBinding

See *Cocoa Bindings Reference* for more information.

Available in Mac OS X v10.4 and later.

Declared in NSKeyValueBinding.h.

NSAlternateImageBinding

See *Cocoa Bindings Reference* for more information.

Available in Mac OS X v10.4 and later.

Declared in NSKeyValueBinding.h.

NSAlternateTitleBinding

See *Cocoa Bindings Reference* for more information.

Available in Mac OS X v10.4 and later.

Declared in NSKeyValueBinding.h.

NSAnimateBinding

See *Cocoa Bindings Reference* for more information.

Available in Mac OS X v10.4 and later.

Declared in NSKeyValueBinding.h.

NSAnimationDelayBinding

See *Cocoa Bindings Reference* for more information.

Available in Mac OS X v10.4 and later.

Declared in NSKeyValueBinding.h.

NSArgumentBinding

See *Cocoa Bindings Reference* for more information.

Available in Mac OS X v10.4 and later.

Declared in NSKeyValueBinding.h.

NSAttributedStringBinding

See *Cocoa Bindings Reference* for more information.

Available in Mac OS X v10.4 and later.

Declared in `NSKeyValueBinding.h`.

NSContentArrayBinding

See *Cocoa Bindings Reference* for more information.

Available in Mac OS X v10.4 and later.

Declared in `NSKeyValueBinding.h`.

NSContentArrayForMultipleSelectionBinding

See *Cocoa Bindings Reference* for more information.

Available in Mac OS X v10.4 and later.

Declared in `NSKeyValueBinding.h`.

NSContentBinding

See *Cocoa Bindings Reference* for more information.

Available in Mac OS X v10.4 and later.

Declared in `NSKeyValueBinding.h`.

NSContentDictionaryBinding

See *Cocoa Bindings Reference* for more information.

Available in Mac OS X v10.5 and later.

Declared in `NSKeyValueBinding.h`.

NSContentHeightBinding

See *Cocoa Bindings Reference* for more information.

Available in Mac OS X v10.4 and later.

Declared in `NSKeyValueBinding.h`.

NSContentObjectBinding

See *Cocoa Bindings Reference* for more information.

Available in Mac OS X v10.4 and later.

Declared in `NSKeyValueBinding.h`.

NSContentObjectsBinding

See *Cocoa Bindings Reference* for more information.

Available in Mac OS X v10.4 and later.

Declared in `NSKeyValueBinding.h`.

NSContentSetBinding

See *Cocoa Bindings Reference* for more information.

Available in Mac OS X v10.4 and later.

Declared in `NSKeyValueBinding.h`.

NSContentValuesBinding

See *Cocoa Bindings Reference* for more information.

Available in Mac OS X v10.4 and later.

Declared in `NSKeyValueBinding.h`.

NSContentWidthBinding

See *Cocoa Bindings Reference* for more information.

Available in Mac OS X v10.4 and later.

Declared in `NSKeyValueBinding.h`.

NSCriticalValueBinding

See *Cocoa Bindings Reference* for more information.

Available in Mac OS X v10.4 and later.

Declared in `NSKeyValueBinding.h`.

NSDataBinding

See *Cocoa Bindings Reference* for more information.

Available in Mac OS X v10.4 and later.

Declared in `NSKeyValueBinding.h`.

NSDisplayPatternTitleBinding

See *Cocoa Bindings Reference* for more information.

Available in Mac OS X v10.4 and later.

Declared in `NSKeyValueBinding.h`.

NSDisplayPatternValueBinding

See *Cocoa Bindings Reference* for more information.

Available in Mac OS X v10.4 and later.

Declared in `NSKeyValueBinding.h`.

NSDocumentEditedBinding

See *Cocoa Bindings Reference* for more information.

Available in Mac OS X v10.4 and later.

Declared in `NSKeyValueBinding.h`.

NSDoubleClickArgumentBinding

See *Cocoa Bindings Reference* for more information.

Available in Mac OS X v10.4 and later.

Declared in `NSKeyValueBinding.h`.

NSDoubleClickTargetBinding

See *Cocoa Bindings Reference* for more information.

Available in Mac OS X v10.4 and later.

Declared in `NSKeyValueBinding.h`.

NSEditableBinding

See *Cocoa Bindings Reference* for more information.

Available in Mac OS X v10.4 and later.

Declared in `NSKeyValueBinding.h`.

NSEnabledBinding

See *Cocoa Bindings Reference* for more information.

Available in Mac OS X v10.4 and later.

Declared in `NSKeyValueBinding.h`.

NSExcludedKeysBinding

See *Cocoa Bindings Reference* for more information.

Available in Mac OS X v10.5 and later.

Declared in NSKeyValueBinding.h.

NSFilterPredicateBinding

See *Cocoa Bindings Reference* for more information.

Available in Mac OS X v10.4 and later.

Declared in NSKeyValueBinding.h.

NSFontBinding

See *Cocoa Bindings Reference* for more information.

Available in Mac OS X v10.4 and later.

Declared in NSKeyValueBinding.h.

NSFontBoldBinding

See *Cocoa Bindings Reference* for more information.

Available in Mac OS X v10.4 and later.

Declared in NSKeyValueBinding.h.

NSFontFamilyNameBinding

See *Cocoa Bindings Reference* for more information.

Available in Mac OS X v10.4 and later.

Declared in NSKeyValueBinding.h.

NSFontItalicBinding

See *Cocoa Bindings Reference* for more information.

Available in Mac OS X v10.4 and later.

Declared in NSKeyValueBinding.h.

NSFontNameBinding

See *Cocoa Bindings Reference* for more information.

Available in Mac OS X v10.4 and later.

Declared in NSKeyValueBinding.h.

NSFontSizeBinding

See *Cocoa Bindings Reference* for more information.

Available in Mac OS X v10.4 and later.

Declared in NSKeyValueBinding.h.

NSHeaderTitleBinding

See *Cocoa Bindings Reference* for more information.

Available in Mac OS X v10.4 and later.

Declared in NSKeyValueBinding.h.

NSHiddenBinding

See *Cocoa Bindings Reference* for more information.

Available in Mac OS X v10.4 and later.

Declared in NSKeyValueBinding.h.

NSImageBinding

See *Cocoa Bindings Reference* for more information.

Available in Mac OS X v10.4 and later.

Declared in `NSKeyValueBinding.h`.

NSIncludedKeysBinding

See *Cocoa Bindings Reference* for more information.

Available in Mac OS X v10.5 and later.

Declared in `NSKeyValueBinding.h`.

NSInitialKeyBinding

See *Cocoa Bindings Reference* for more information.

Available in Mac OS X v10.5 and later.

Declared in `NSKeyValueBinding.h`.

NSInitialValueBinding

See *Cocoa Bindings Reference* for more information.

Available in Mac OS X v10.5 and later.

Declared in `NSKeyValueBinding.h`.

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See *Cocoa Bindings Reference* for more information.

Available in Mac OS X v10.4 and later.

Declared in `NSKeyValueBinding.h`.

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See *Cocoa Bindings Reference* for more information.

Available in Mac OS X v10.4 and later.

Declared in `NSKeyValueBinding.h`.

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Available in Mac OS X v10.5 and later.

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Available in Mac OS X v10.4 and later.

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Available in Mac OS X v10.4 and later.

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NSTitleBinding

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Available in Mac OS X v10.4 and later.

Declared in `NSKeyValueBinding.h`.

NSToolTipBinding

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Available in Mac OS X v10.4 and later.

Declared in `NSKeyValueBinding.h`.

NSTransparentBinding

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Available in Mac OS X v10.5 and later.

Declared in `NSKeyValueBinding.h`.

NSValueBinding

See *Cocoa Bindings Reference* for more information.

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Available in Mac OS X v10.4 and later.

Declared in `NSKeyValueBinding.h`.

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See *Cocoa Bindings Reference* for more information.

Available in Mac OS X v10.4 and later.

Declared in `NSKeyValueBinding.h`.

NSWarningValueBinding

See *Cocoa Bindings Reference* for more information.

Available in Mac OS X v10.4 and later.

Declared in `NSKeyValueBinding.h`.

NSWidthBinding

See *Cocoa Bindings Reference* for more information.

Available in Mac OS X v10.4 and later.

Declared in `NSKeyValueBinding.h`.

# Document Revision History

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This table describes the changes to *NSKeyValueBindingCreation Protocol Reference*.

Date	Notes
2009-11-13	Updated optional status of protocol methods.
2009-05-04	Added missing bindings constants.
2007-04-10	Updated for Mac OS X v10.5.
2006-05-23	First publication of this content as a separate document.

## REVISION HISTORY

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