NSCollectionView Class Reference

Cocoa > User Experience

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NSCollectionView Class Reference

Inherits from	NSView : NSResponder : NSObject
Conforms to	NSAnimatablePropertyContainer (NSView) NSCoding (NSResponder) NSObject (NSObject)
Framework	/System/Library/Frameworks/AppKit.framework
Availability	Available in Mac OS X v10.5 and later.
Declared in	NSCollectionView.h

Overview

`NSCollectionView` displays an array of content as a grid of views.

Tasks

Modifying the Collection View Item

- `setItemPrototype:` (page 12)
  Sets the reciever's item prototype to the specified collection view item.
- `itemPrototype` (page 8)
  Returns the receiver's collection view item prototype.
- `newItemForRepresentedObject:` (page 10)
  Returns the collection view item that is used for the specified object.

Working with the Responder Chain

- `isFirstResponder` (page 8)
  Returns whether the receiver is the first responder.

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Setting the Content

- `setContent:` (page 11)
  Sets the receiver's content array.
- `content` (page 7)
  Returns the receiver's content object.

Setting the Selection Mode

- `setSelectable:` (page 14)
  Controls whether the receiver allows the user to select items.
- `isSelectable` (page 8)
  Returns a Boolean value that indicates whether the receiver allows the user to select items, `NO` if it doesn't.
- `setAllowsMultipleSelection:` (page 11)
  Controls whether the user can select multiple items at a time.
- `allowsMultipleSelection` (page 7)
  Returns a Boolean value that indicates whether the receiver allows the user to select more than one item at a time.
- `setSelectionIndexes:` (page 14)
  Sets the receiver's selection using the specified indexes.
- `selectionIndexes` (page 10)
  Returns an index set containing the indexes of the receiver's currently selected objects in the content array.

Laying out the Collection View

- `setMaxNumberOfRows:` (page 13)
  Sets the maximum number of rows the receiver will display.
- `maxNumberOfRows` (page 9)
  Returns the maximum number of rows the receiver will display.
- `setMaxNumberOfColumns:` (page 12)
  Sets the maximum number of columns the receiver will display
- `maxNumberOfColumns` (page 9)
  Returns the maximum number of columns the receiver will display.
- `setMinItemSize:` (page 13)
  Sets the minimum size used to display individual layout items in the grid.
- `minItemSize` (page 10)
  Returns the minimum size used to display individual collection view items in the grid.
- `setMaxItemSize:` (page 12)
  Sets the maximum size used to display individual collection view items in the grid.
- `maxItemSize` (page 9)
  Returns the maximum size used to display individual collection view items in the grid

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Modifying the Visual Properties

- `setBackgroundColors:` (page 11)
  Sets the receiver's background colors to the specified array of colors.
- `backgroundColors` (page 7)
  Return the receiver's background colors.

Instance Methods

allowsMultipleSelection

Returns a Boolean value that indicates whether the receiver allows the user to select more than one item at a time.

```
- (BOOL)allowsMultipleSelection
```

Return Value
`YES` if the receiver allows the user to select more than one column or row at a time, otherwise `NO`.

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

Declared In
`NSCollectionView.h`

backgroundColors

Return the receiver's background colors.

```
- (NSArray *)backgroundColors
```

Return Value
Returns an array containing the receiver's background colors.

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

Declared In
`NSCollectionView.h`

content

Returns the receiver's content object.

```
- (NSArray *)content
```

Return Value
An array containing the receiver's content.

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Discussion
This property is observable using key-value observing.

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

Declared In
`NSCollectionView.h`

isFirstResponder

Returns whether the receiver is the first responder.

```
- (BOOL)isFirstResponder
```

Return Value
`YES` if the receiver is the first responder, otherwise `NO`.

Special Considerations
This method is fully key-value observing compliant.

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

Declared In
`NSCollectionView.h`

isSelectable

Returns a Boolean value that indicates whether the receiver allows the user to select items, `NO` if it doesn't.

```
- (BOOL)isSelectable
```

Return Value
`YES` if the receiver allows the user to select items, otherwise `NO`.

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

Declared In
`NSCollectionView.h`

itemPrototype

Returns the receiver's collection view item prototype.

```
- (NSCollectionViewItem *)itemPrototype
```

Return Value
The receiver's collection view item prototype.

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

Declared In
`NSCollectionView.h`

maxItemSize

Returns the maximum size used to display individual collection view items in the grid

```
- (NSSize)maxItemSize
```

Return Value
The maximum size, measured in points, used to display individual collection view items.

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

Declared In
`NSCollectionView.h`

maxNumberOfColumns

Returns the maximum number of columns the receiver will display.

```
- (NSUInteger)maxNumberOfColumns
```

Return Value
The maximum number of columns the receiver will display.

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

Declared In
`NSCollectionView.h`

maxNumberOfRows

Returns the maximum number of rows the receiver will display.

```
- (NSUInteger)maxNumberOfRows
```

Return Value
The maximum number of rows the receiver will display.

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

Declared In
`NSCollectionView.h`

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minItemSize

Returns the minimum size used to display individual collection view items in the grid.

```
- (NSSize)minItemSize
```

Return Value
The minimum size, measured in points, used to display individual collection view items.

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

Declared In
`NSCollectionView.h`

newItemForRepresentedObject:

Returns the collection view item that is used for the specified object.

```
- (NSCollectionViewItem *)newItemForRepresentedObject:(id)object
```

Parameters

object
The content object that the collection view item will represent.

Return Value
An initialized collection view item with the specified object and the appropriate view set. The collection view item should not be autoreleased.

Discussion
Subclasses can override this method if the collection view items are not generated from a prototype or if the prototype view needs to be modified. The subclass is responsible for setting the `view` and `representedObject` of the new collection view item.

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

Declared In
`NSCollectionView.h`

selectionIndexes

Returns an index set containing the indexes of the receiver's currently selected objects in the content array.

```
- (NSIndexSet *)selectionIndexes
```

Return Value
An index set containing the indexes of the receiver's currently selected objects in the content array.

Discussion
This property is observable using key-value observing.

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

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Declared In
NSCollectionView.h

setAllowsMultipleSelection:

Controls whether the user can select multiple items at a time.

```
- (void)setAllowsMultipleSelection:(BOOL)flag
```

Parameters

flag

YES to allow the user to select multiple items, otherwise NO.

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

Declared In
NSCollectionView.h

setBackgroundColors:

Sets the receiver's background colors to the specified array of colors.

```
- (void)setBackgroundColors:(NSArray *)colors
```

Parameters

colors

An array containing the background colors for the receiver.

Discussion
Passing an empty array or nil resets the background colors to their default values provided by controlAlternatingRowBackgroundColors.

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

Declared In
NSCollectionView.h

setContent:

Sets the receiver’s content array.

```
- (void)setContent:(NSArray *)content
```

Parameters

content

An array containing the receiver’s content.

Discussion
The content array can also be provided by creating a binding between the receiver’s NSContentBinding and an array controller’s arrangedObjects method.

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

Declared In
`NSCollectionView.h`

setItemPrototype:

Sets the reciever's item prototype to the specified collection view item.

```
- (void)setItemPrototype:(NSCollectionViewItem *)prototype
```

Parameters

prototype
The collection view item used as the prototype by the receiver.

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

Declared In
`NSCollectionView.h`

setMaxItemSize:

Sets the maximum size used to display individual collection view items in the grid.

```
- (void)setMaxItemSize:(NSSize)size
```

Parameters

size
The new maximum size, measured in points, with which to display individual collection view items.

Discussion
Setting the size to (0,0) specifies no maximum grid size. The default is (0.0). If the view in the receiver's collection view item prototype is resizable you should set this to the maximum size that the view should be displayed using.

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

Declared In
`NSCollectionView.h`

setMaxNumberOfColumns:

Sets the maximum number of columns the receiver will display

```
- (void)setMaxNumberOfColumns:(NSUInteger)number
```

Parameters

number
The maximum number of columns the receiver will display.

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Discussion
Setting to 0 specifies no maximum number of columns. Defaults to 0.

It is possible for a `NSCollectionView` instance to specify both the maximum number of rows and a maximum number of columns. If the number of content objects exceeds the number of displayable items (*n*=`maxNumberOfRows` * `maxNumberOfColumns`) only the first *n* items of the content array are displayed.

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

Declared In
`NSCollectionView.h`

setMaxNumberOfRows:

Sets the maximum number of rows the receiver will display.

```
- (void)setMaxNumberOfRows:(NSUInteger)number
```

Parameters

number
The maximum number of rows the receiver can display.

Discussion
Setting to 0 specifies no maximum number of rows. Defaults to 0.

It is possible for a `NSCollectionView` instance to specify both the maximum number of rows and a maximum number of columns. If the number of content objects exceeds the number of displayable items (*n*=`maxNumberOfRows` * `maxNumberOfColumns`) only the first *n* items of the content array are displayed.

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

Declared In
`NSCollectionView.h`

setMinItemSize:

Sets the minimum size used to display individual layout items in the grid.

```
- (void)setMinItemSize:(NSSize)size
```

Parameters

size
The new minimum size, measured in points, with which to display individual layout items.

Discussion
The default is (0.0). If the view in the receiver's collection view item prototype is resizable you should set this to the minimum size that the view should be displayed using.

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

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Declared In
NSCollectionView.h

setSelectable:

Controls whether the receiver allows the user to select items.

```
- (void)setSelectable:(BOOL)flag
```

Parameters

flag

If flag is YES, the receiver allows the user to select items; if flag is NO, it doesn't.

Discussion
You can set selections programmatically regardless of this setting.

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

Declared In
NSCollectionView.h

setSelectionIndexes:

Sets the receiver's selection using the specified indexes.

```
- (void)setSelectionIndexes:(NSIndexSet *)indexes
```

Parameters

indexes

The set of selection indexes for the receiver.

Discussion
To select all the receiver's objects, indexes should be an index set with indexes [0...count -1]. To deselect all indexes, pass an empty index set.

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

Declared In
NSCollectionView.h

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Document Revision History

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

Date	Notes
2007-12-11	Corrected typos.
2006-12-28	New document that describes the class used for creating groups of views from a prototype view.

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Document Revision History

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