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API Collection

Collection View

Display one or more subviews in a highly configurable arrangement.

Topics

View

`class` `NSCollectionView`

An ordered collection of data items displayed in a customizable layout.

`protocol` `NSCollectionViewSectionHeaderView`

A protocol that defines a button to control the collapse of a collection view's section.

Components

`class` `NSCollectionViewLayoutItem`

The most basic component of a collection view's layout.

`class` `NSCollectionViewLayoutGroup`

A container for a set of items that lays out the items along a path.

`class` `NSCollectionViewLayoutSection`

A container that combines a set of groups into distinct visual groupings.

Size and spacing

`class` `NSCollectionViewLayoutDimension`

An individual dimension representing an item's width or height in a collection view.

`class NSCollectionLayoutSize`

The width and the height of an item in a collection view.

`class NSCollectionLayoutSpacing`

An object that defines the space between or around items in a collection view.

`class NSCollectionLayoutEdgeSpacing`

An object that defines the space around the edges of items in a collection view.

`protocol NSCollectionLayoutContainer`

A protocol used to provide information about the size and content insets of a layout's container.

Data

`protocol NSCollectionViewDataSource`

A set of methods that a data source object implements to provide the information and view objects that a collection view requires to present content.

`protocol NSCollectionViewDelegate`

A set of methods that you use to manage the behavior of a collection view.

`class NSCollectionViewDiffableDataSource`

The object you use to manage data and provide items for a collection view.

`struct NSDiffableDataSourceSnapshot`

A representation of the state of the data in a view at a specific point in time.

Items

`class NSCollectionViewItem`

The visual representation for a single data element in a collection view.

`protocol NSCollectionViewElement`

A set of methods that you use to manage the content in a collection view.

Layouts

`{}` Implementing modern collection views

Bring compositional layouts to your app and simplify updating your user interface with diffable data sources.

`class NSCollectionViewFlowLayout`

A layout that organizes items into a flexible and configurable arrangement.

`protocol NSCollectionViewDelegateFlowLayout`

A set of methods that a delegate implements to provide layout information to a flow layout object in a collection view.

`class NSCollectionViewGridLayout`

A layout that displays a single section of items in a row and column grid.

`class NSCollectionViewTransitionLayout`

An object that implements custom behaviors when changing from one layout to another in a collection view.

`class NSCollectionViewLayoutAttributes`

An object that contains layout-related attributes for an element in a collection view.

`class NSCollectionViewLayout`

An abstract base class that you subclass and use to generate layout information for a collection view.

`class NSCollectionViewCompositionalLayout`

A layout object that lets you combine items in highly adaptive and flexible visual arrangements.

`class NSCollectionViewCompositionalLayoutConfiguration`

An object that defines scroll direction, section spacing, and headers or footers for the layout.

`typealias NSCollectionViewCompositionalLayoutSectionProvider`

A closure that creates and returns each of the layout's sections.

`enum NSCollectionViewLayoutSectionOrthogonalScrollingBehavior`

The scrolling behavior of the layout's sections in relation to the main layout axis.

Appearance

`class NSCollectionViewLayoutBoundarySupplementaryItem`

An object used to add headers or footers to a collection view.

`class NSCollectionViewLayoutSupplementaryItem`

An object used to add an extra visual decoration to an item in a collection view.

`class NSCollectionViewLayoutDecorationItem`

An object used to add a background to a section of a collection view.

`class NSCollectionViewLayoutAnchor`

An object that defines how to attach a supplementary item to an item in a collection view.

Advanced layouts

`class NSCollectionViewLayoutGroupCustomItem`

An item used in a group with a custom layout arrangement.

`typealias NSCollectionViewLayoutGroupCustomItemProvider`

A closure that creates and returns each of the custom group's items.

Layout updates

`protocol NSCollectionViewLayoutVisibleItem`

An item that's currently visible within the bounds of a section.

`typealias NSCollectionViewLayoutSectionVisibleItemsInvalidationHandler`

A closure called before each layout cycle to allow modification of items in a section immediately before they're displayed.

Configuration

`protocol NSCollectionViewLayoutEnvironment`

A protocol used to provide information about the layout's container and environment traits, such as size classes and display scale factor.

Updates

`class NSCollectionViewUpdateItem`

A description of a single change to make to an item in a collection view.

`class NSCollectionViewLayoutInvalidationContext`

An object that identifies the portions of your layout that need to be updated.

`class NSCollectionViewFlowLayoutInvalidationContext`

An object that identifies the portions of a flow layout object that need to be updated.

See Also

Content views



Browser View

Provide a column-based interface for viewing and navigating hierarchical information.



Outline View

Display a list-based interface for hierarchical data, where each level of hierarchy is indented from the previous one.



Table View

Display custom data in rows and columns.

`class NSTextView`

A view that draws text and handles user interactions with that text.