NSDraggingSource Protocol Reference

Cocoa > Interapplication Communication

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NSDraggingSource Protocol Reference

(informal protocol)

Framework	/System/Library/Frameworks/AppKit.framework
Companion guide	Drag and Drop Programming Topics for Cocoa
Declared in	NSDragging.h

Overview

The `NSDraggingSource` informal protocol declares methods that are implemented by the source object in a dragging session. The dragging source is specified as an argument to the `dragImage:at:offset:event:pasteboard:source:slideBack:` message, sent to a window or view object to initiate the dragging session.

Of the methods declared below, only `draggingSourceOperationMaskForLocal:` (page 8) must be implemented. The other methods are invoked only if the dragging source implements them. All methods are invoked automatically during a dragging session—you never send an `NSDraggingSource` message directly to an object.

Tasks

Specifying Dragging Options

- `draggingSourceOperationMaskForLocal:` (page 8)
  Returns an integer bit mask indicating the types of dragging operations the source object will allow to be performed on the dragged image's data.
- `ignoreModifierKeysWhileDragging` (page 8)
  Sets whether the use of modifier keys should have an effect on the type of operation performed.

Responding to Messages During a Dragging Sessions

- `draggedImage:beganAt:` (page 6)
  Gives the source object an opportunity to respond to the initiation of a dragging session.
- `draggedImage:movedTo:` (page 7)
  Informs the dragging source when a dragged image moves to a new screen coordinate.

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- `draggedImage:endedAt:deposited:` (page 6)
  Invoked after the dragging destination has been given a chance to operate on the data represented by the image, (Deprecated)
- `draggedImage:endedAt:operation:` (page 7)
  Invoked after the dragging destination has been given a chance to operate on the data represented by the image,
- `namesOfPromisedFilesDroppedAtDestination:` (page 9)
  Returns the names of the files that the receiver promises to create at a specified location.

Instance Methods

draggedImage:beganAt:

Gives the source object an opportunity to respond to the initiation of a dragging session.

```
- (void)draggedImage:(NSImage *)anImage beganAt:(NSPoint)aPoint
```

Parameters

anImage
  The image of the dragged item.

aPoint
  The origin of the image in screen coordinates.

Discussion
This method is invoked when *anImage* is displayed but before it starts following the mouse. For example, you might choose to have the source give a visual indication to the user that data is being dragged from the source.

Availability
Available in Mac OS X v10.0 and later.

See Also
- `convertScreenToBase:` (NSWindow)
- `convertBaseToScreen:` (NSWindow)
- `convertPoint:fromView:` (NSView)
- `convertPoint:toView:` (NSView)

Declared In
`NSDragging.h`

draggedImage:endedAt:deposited:

Invoked after the dragging destination has been given a chance to operate on the data represented by the image, (Deprecated)

```
- (void)draggedImage:(NSImage *)anImage endedAt:(NSPoint)aPoint deposited:(BOOL)flag
```

Discussion
This method has been deprecated. Use `draggedImage:endedAt:operation:` (page 7) instead.

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Availability
Available in Mac OS X v10.0 and later.

Declared In
`NSDragging.h`

draggedImage:endedAt:operation:

Invoked after the dragging destination has been given a chance to operate on the data represented by the image,

```
- (void)draggedImage:(NSImage *)anImage endedAt:(NSPoint)aPoint
    operation:(NSDragOperation)operation
```

Parameters

anImage

The dragged image.

aPoint

The point locating the image's origin in the screen coordinate system when it was released.

operation

An integer constant that indicates the operation performed by the destination.

Discussion
This method is invoked after the dragged image (*anImage*) has been released and the dragging destination has been given a chance to operate on the data it represents. This method provides the source object with an opportunity to respond to either a successful or a failed dragging session. For example, if you are moving data from one location to another, you could use this method to make the source data disappear from its previous location, if the dragging session is successful, or reset itself to its previous state, in the event of a failure.

Availability
Available in Mac OS X v10.0 and later.

Declared In
`NSDragging.h`

draggedImage:movedTo:

Informs the dragging source when a dragged image moves to a new screen coordinate.

```
- (void)draggedImage:(NSImage *)draggedImage movedTo:(NSPoint)screenPoint
```

Parameters

draggedImage

The dragged image.

screenPoint

The point specifying the new location of the image in screen coordinates.

Discussion
This message is similar to the dragging destination being sent `draggingUpdated:` messages.

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Availability
Available in Mac OS X v10.0 and later.

Declared In
`NSDragging.h`

draggingSourceOperationMaskForLocal:

Returns an integer bit mask indicating the types of dragging operations the source object will allow to be performed on the dragged image's data.

```
- (NSDragOperation)draggingSourceOperationMaskForLocal:(BOOL)isLocal
```

Parameters

isLocal

`YES` indicates that the candidate destination object (the window or view over which the dragged image is currently poised) is in the same application as the source, while a `NO` value indicates that the destination object is in a different application.

Discussion
This method is the only `NSDraggingSource` method that must be implemented by the source object. It should return a mask, built by combining the allowed dragging operations listed in the "Constants" section of the `NSDraggingInfo` protocol reference, using the C bitwise OR operator. If the source does not permit any dragging operations, it should return `NSDragOperationNone`.

Availability
Available in Mac OS X v10.0 and later.

Declared In
`NSDragging.h`

ignoreModifierKeysWhileDragging

Sets whether the use of modifier keys should have an effect on the type of operation performed.

```
- (BOOL)ignoreModifierKeysWhileDragging
```

Discussion
If this method is not implemented or returns `NO`, the user can tailor the drag operation by holding down a modifier key during the drag. The dragging option that corresponds to the modifier key is combined with the source's mask (as set with the `draggingSourceOperationMaskForLocal:` (page 8) method) using the C bitwise AND operator. See the description for the `draggingSourceOperationMask` method in the NSDraggingInfo protocol specification for more information about dragging masks and modifier keys.

Availability
Available in Mac OS X v10.0 and later.

Declared In
`NSDragging.h`

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namesOfPromisedFilesDroppedAtDestination:

Returns the names of the files that the receiver promises to create at a specified location.

```
- (NSArray *)namesOfPromisedFilesDroppedAtDestination:(NSURL *)dropDestination
```

Parameters

dropDestination

A URL object that identifies the location at which the promised files will be created.

Return Value

An array of the names of files (not full paths) that the receiver promises to create at `dropDestination`.

Discussion

This method is invoked when the drop has been accepted by the destination and the destination, in the case of another Cocoa application, invokes the NSDraggingInfo method `namesOfPromisedFilesDroppedAtDestination:`. For long operations, you can cache *dropDestination* and defer the creation of the files until the `draggedImage:endedAt:operation:` (page 7) method to avoid blocking the destination application.

Availability

Available in Mac OS X v10.2 and later.

Declared In

`NSDragging.h`

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Document Revision History

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

Date	Notes
2007-03-01	Revised task headings.
2006-05-23	First publication of this content as a separate document.

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Document Revision History

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