NSEntityMigrationPolicy Class Reference

Data Management

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Contents

NSEntityMigrationPolicy Class Reference 5

Overview 5
Tasks 5
Customizing Stages of the Mapping Life Cycle 5
Instance Methods 6
beginEntityMapping:manager:error: 6
createDestinationInstancesForSourceInstance:entityMapping:manager:error: 6
createRelationshipsForDestinationInstance:entityMapping:manager:error: 7
endEntityMapping:manager:error: 8
endInstanceCreationForEntityMapping:manager:error: 9
endRelationshipCreationForEntityMapping:manager:error: 9
performCustomValidationForEntityMapping:manager:error: 10
Constants 11
Value Expression Keys 11

Document Revision History 13

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NSEntityMigrationPolicy Class Reference

Inherits from	NSObject
Conforms to	NSObject (NSObject)
Framework	/System/Library/Frameworks/CoreData.framework
Availability	Available in iOS 3.0 and later.
Companion guide	Core Data Model Versioning and Data Migration Programming Guide
Declared in	NSEntityMigrationPolicy.h

Overview

Instances of `NSEntityMigrationPolicy` customize the migration process for an entity mapping.

You set the policy for an entity mapping by passing the name of the migration policy class as the argument to `setEntityMigrationPolicyClassName:` (typically you specify the name in the Xcode mapping model editor).

Tasks

Customizing Stages of the Mapping Life Cycle

- `beginEntityMapping:manager:error:` (page 6)
  Invoked by the migration manager at the start of a given entity mapping.
- `createDestinationInstancesForSourceInstance:entityMapping:manager:error:` (page 6)
  Creates the destination instance(s) for a given source instance.
- `endInstanceCreationForEntityMapping:manager:error:` (page 9)
  Indicates the end of the creation stage for the specified entity mapping, and the precursor to the next migration stage.
- `createRelationshipsForDestinationInstance:entityMapping:manager:error:` (page 7)
  Constructs the relationships between the newly-created destination instances.
- `endRelationshipCreationForEntityMapping:manager:error:` (page 9)
  Indicates the end of the relationship creation stage for the specified entity mapping.

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- `performCustomValidationForEntityMapping:manager:error:` (page 10)
  Invoked during the validation stage of the entity migration policy, providing the option of performing custom validation on migrated objects.
- `endEntityMapping:manager:error:` (page 8)
  Invoked by the migration manager at the end of a given entity mapping.

Instance Methods

beginEntityMapping:manager:error:

Invoked by the migration manager at the start of a given entity mapping.

```
- (BOOL)beginEntityMapping:(NSEntityMapping *)mapping
    manager:(NSMigrationManager *)manager
    error:(NSError **)error
```

Parameters

mapping
The mapping object in use.

manager
The migration manager performing the migration.

error
If an error occurs, upon return contains an `NSError` object that describes the problem.

Return Value
`YES` if the method completes successfully, otherwise `NO`.

Discussion
This method is the precursor to the creation stage. In a custom class, you can implement this method to set up any state information that will be useful for the duration of the migration.

Availability
Available in iOS 3.0 and later.

See Also
- `createDestinationInstancesForSourceInstance:entityMapping:manager:error:` (page 6)
- `endEntityMapping:manager:error:` (page 8)

Declared In
`NSEntityMigrationPolicy.h`

createDestinationInstancesForSourceInstance:entityMapping:manager:error:

Creates the destination instance(s) for a given source instance.

```
- (BOOL)createDestinationInstancesForSourceInstance:(NSManagedObject *)sInstance
    entityMapping:(NSEntityMapping *)mapping
    manager:(NSMigrationManager *)manager
    error:(NSError **)error
```


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Parameters

sInstance

The source instance for which to create destination instances.

mapping

The mapping object in use.

manager

The migration manager performing the migration.

error

If an error occurs, upon return contains an `NSError` object that describes the problem.

Return Value

`YES` if the method completes successfully, otherwise `NO`.

Discussion

This method is invoked by the migration manager on each source instance (as specified by the `sourceExpression` in the mapping) to create the corresponding destination instance(s). It also associates the source and destination instances by calling `NSMigrationManager`'s `associateSourceInstance:withDestinationInstance:forEntityMapping:` method.

Special Considerations

If you override this method and do not invoke `super`, you must invoke `NSMigrationManager`'s `associateSourceInstance:withDestinationInstance:forEntityMapping:` to associate the source and destination instances as required. .

Availability

Available in iOS 3.0 and later.

See Also

- `beginEntityMapping:manager:error:` (page 6)
- `endInstanceCreationForEntityMapping:manager:error:` (page 9)

Declared In

`NSEntityMigrationPolicy.h`

createRelationshipsForDestinationInstance:entityMapping:manager:error:

Constructs the relationships between the newly-created destination instances.

```
- (BOOL)createRelationshipsForDestinationInstance:(NSManagedObject *)dInstance
    entityMapping:(NSEntityMapping *)mapping manager:(NSMigrationManager *)manager
     error:(NSError **)error
```

Parameters

dInstance

The destination instance for which to create relationships.

mapping

The mapping object in use.

manager

The migration manager performing the migration.

error

If an error occurs, upon return contains an `NSError` object that describes the problem.

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Return Value
`YES` if the relationships are constructed correctly, otherwise `NO`.

Discussion
You can use this stage to (re)create relationships between migrated objects—you use the association lookup methods on the `NSMigrationManager` instance to determine the appropriate relationship targets.

Availability
Available in iOS 3.0 and later.

See Also
- `endInstanceCreationForEntityMapping:manager:error:` (page 9)
- `endRelationshipCreationForEntityMapping:manager:error:` (page 9)

Declared In
`NSEntityMigrationPolicy.h`

endEntityMapping:manager:error:

Invoked by the migration manager at the end of a given entity mapping.

```
- (BOOL)endEntityMapping:(NSEntityMapping *)mapping
    manager:(NSMigrationManager *)manager
    error:(NSError **)error
```

Parameters

mapping
The mapping object in use.

manager
The migration manager performing the migration.

error
If an error occurs, upon return contains an `NSError` object that describes the problem.

Return Value
`YES` if the method completes correctly, otherwise `NO`.

Discussion
This is the end to the given entity mapping. You can implement this method to perform any clean-up at the end of the migration (from any of the three phases of the mapping).

Availability
Available in iOS 3.0 and later.

See Also
- `performCustomValidationForEntityMapping:manager:error:` (page 10)
- `beginEntityMapping:manager:error:` (page 6)

Declared In
`NSEntityMigrationPolicy.h`

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endInstanceCreationForEntityMapping:manager:error:

Indicates the end of the creation stage for the specified entity mapping, and the precursor to the next migration stage.

```
- (BOOL)endInstanceCreationForEntityMapping:(NSEntityMapping *)mapping
    manager:(NSMigrationManager *)manager
    error:(NSError **)error
```

Parameters

mapping

The mapping object in use.

manager

The migration manager performing the migration.

error

If an error occurs, upon return contains an `NSError` object that describes the problem.

Return Value

`YES` if the relationships are constructed correctly, otherwise `NO`.

Discussion

You can override this method to clean up state from the creation of destination or to prepare state for the creation of relationships.

Availability

Available in iOS 3.0 and later.

See Also

- `createDestinationInstancesForSourceInstance:entityMapping:manager:error:` (page 6)
- `createRelationshipsForDestinationInstance:entityMapping:manager:error:` (page 7)

Declared In

`NSEntityMigrationPolicy.h`

endRelationshipCreationForEntityMapping:manager:error:

Indicates the end of the relationship creation stage for the specified entity mapping.

```
- (BOOL)endRelationshipCreationForEntityMapping:(NSEntityMapping *)mapping
    manager:(NSMigrationManager *)manager
    error:(NSError **)error
```

Parameters

mapping

The mapping object in use.

manager

The migration manager performing the migration.

error

If an error occurs, upon return contains an `NSError` object that describes the problem.

Return Value

`YES` if the method completes correctly, otherwise `NO`.

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Discussion
This method is invoked after `createRelationshipsForDestinationInstance:entityMapping:manager:error:` (page 7); you can override it to clean up state from the creation of relationships, or prepare state for custom validation in `performCustomValidationForEntityMapping:manager:error:` (page 10).

Availability
Available in iOS 3.0 and later.

See Also
- `createRelationshipsForDestinationInstance:entityMapping:manager:error:` (page 7)
- `performCustomValidationForEntityMapping:manager:error:` (page 10)

Declared In
`NSEntityMigrationPolicy.h`

performCustomValidationForEntityMapping:manager:error:

Invoked during the validation stage of the entity migration policy, providing the option of performing custom validation on migrated objects.

```
- (BOOL)performCustomValidationForEntityMapping:(NSEntityMapping *)mapping
    manager:(NSMigrationManager *)manager
    error:(NSError **)error
```

Parameters

mapping
The mapping object in use.

manager
The migration manager performing the migration.

error
If an error occurs, upon return contains an `NSError` object that describes the problem.

Return Value
`YES` if the method completes correctly, otherwise `NO`.

Discussion
This method is called before the default save validation is performed by the framework.

If you implement this method, you must manually obtain the collection of objects you are interested in validating.

Availability
Available in iOS 3.0 and later.

See Also
- `endRelationshipCreationForEntityMapping:manager:error:` (page 9)
- `endEntityMapping:manager:error:` (page 8)

Declared In
`NSEntityMigrationPolicy.h`

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Constants

Value Expression Keys

Keys used in value expression right hand sides.

```
NSString *NSMigrationManagerKey;
NSString *NSMigrationSourceObjectKey;
NSString *NSMigrationDestinationObjectKey;
NSString *NSMigrationEntityMappingKey;
NSString *NSMigrationPropertyMappingKey;
NSString *NSMigrationEntityPolicyKey;
```

Constants

`NSMigrationManagerKey`

Key for the migration manager.

To access this key in a custom value expression string in the Xcode mapping model editor use `$manager`.

Available in iOS 3.0 and later.

Declared in `NSEntityMigrationPolicy.h`.

`NSMigrationSourceObjectKey`

Key for the source object.

To access this key in a custom value expression string in the Xcode mapping model editor use `$source`.

Available in iOS 3.0 and later.

Declared in `NSEntityMigrationPolicy.h`.

`NSMigrationDestinationObjectKey`

Key for the destination object.

To access this key in a custom value expression string in the Xcode mapping model editor use `$destination`.

Available in iOS 3.0 and later.

Declared in `NSEntityMigrationPolicy.h`.

`NSMigrationEntityMappingKey`

Key for the entity mapping object.

To access this key in a custom value expression string in the Xcode mapping model editor use `$entityMapping`.

Available in iOS 3.0 and later.

Declared in `NSEntityMigrationPolicy.h`.

`NSMigrationPropertyMappingKey`

Key for the property mapping object.

To access this key in a custom value expression string in the Xcode mapping model editor use `$propertyMapping`.

Available in iOS 3.0 and later.

Declared in `NSEntityMigrationPolicy.h`.

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`NSMigrationEntityPolicyKey`

Key for the entity migration policy object.

To access this key in a custom value expression string in the Xcode mapping model editor use `$entityPolicy`.

Available in iOS 3.0 and later.

Declared in `NSEntityMigrationPolicy.h`.

Discussion

You can use these keys in the right hand sides of a value expression.

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Document Revision History

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

Date	Notes
2010-02-24	Added keys for custom value expression strings to Value Expressions.
2009-05-01	Corrected typographical errors.
2009-02-19	Updated for iOS 3.0.
2008-06-02	Updated for Mac OS X v10.6.
2007-05-22	New document that describes the Core Data class uses to customize the migration process for an entity mapping.

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Document Revision History

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