
Core Data Constants Reference

Data Management



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Core Data Constants Reference

Framework:	CoreData/CoreData.h
Declared in	CoreDataDefines.h CoreDataErrors.h

Overview

This document describes the constants defined in the Core Data framework and not described in a document for an individual class.

Constants

Error User Info Keys

Keys in the user info dictionary in errors Core Data creates.

```
const NSString *NSDetailedErrorsKey;  
const NSString *NSValidationObjectErrorKey;  
const NSString *NSValidationKeyErrorKey;  
const NSString *NSValidationPredicateErrorKey;  
const NSString *NSValidationValueErrorKey;  
const NSString *NSAffectedStoresErrorKey;  
const NSString *NSAffectedObjectsErrorKey;
```

Constants

`NSDetailedErrorsKey`

If multiple validation errors occur in one operation, they are collected in an array and added with this key to the “top-level error” of the operation.

Available in Mac OS X v10.4 and later.

Declared in `CoreDataErrors.h`.

`NSValidationObjectErrorKey`

Key for the object that failed to validate for a validation error.

Available in Mac OS X v10.4 and later.

Declared in `CoreDataErrors.h`.

`NSValidationKeyErrorKey`

Key for the key that failed to validate for a validation error.

Available in Mac OS X v10.4 and later.

Declared in `CoreDataErrors.h`.

`NSValidationPredicateErrorKey`

For predicate-based validation, key for the predicate for the condition that failed to validate.

Available in Mac OS X v10.4 and later.

Declared in `CoreDataErrors.h`.

`NSValidationValueErrorKey`

If non-nil, the key for the value for the key that failed to validate for a validation error.

Available in Mac OS X v10.4 and later.

Declared in `CoreDataErrors.h`.

`NSAffectedStoresErrorKey`

The key for stores prompting an error.

Available in Mac OS X v10.4 and later.

Declared in `CoreDataErrors.h`.

`NSAffectedObjectsErrorKey`

The key for objects prompting an error.

Available in Mac OS X v10.4 and later.

Declared in `CoreDataErrors.h`.

Error Domain

Constant to identify the SQLite error domain.

```
const NSString *NSSQLiteErrorDomain;
```

Constants

`NSSQLiteErrorDomain`

Domain for SQLite errors.

The value of "code" corresponds to preexisting values in SQLite.

Available in Mac OS X v10.5 and later.

Declared in `CoreDataErrors.h`.

Validation Error Codes

Error codes related to validation.

<code>NSManagedObjectValidationError</code>	= 1550,
<code>NSValidationMultipleErrorsError</code>	= 1560,
<code>NSValidationMissingMandatoryPropertyError</code>	= 1570,
<code>NSValidationRelationshipLacksMinimumCountError</code>	= 1580,
<code>NSValidationRelationshipExceedsMaximumCountError</code>	= 1590,
<code>NSValidationRelationshipDeniedDeleteError</code>	= 1600,
<code>NSValidationNumberTooLargeError</code>	= 1610,
<code>NSValidationNumberTooSmallError</code>	= 1620,
<code>NSValidationDateTooLateError</code>	= 1630,
<code>NSValidationDateTooSoonError</code>	= 1640,
<code>NSValidationInvalidDateError</code>	= 1650,
<code>NSValidationStringTooLongError</code>	= 1660,
<code>NSValidationStringTooShortError</code>	= 1670,
<code>NSValidationStringPatternMatchingError</code>	= 1680,

Constants

`NSManagedObjectValidationError`

Error code to denote a generic validation error.

Available in Mac OS X v10.4 and later.

Declared in `CoreDataErrors.h`.

`NSValidationMultipleErrorsError`

Error code to denote an error containing multiple validation errors.

Available in Mac OS X v10.4 and later.

Declared in `CoreDataErrors.h`.

`NSValidationMissingMandatoryPropertyError`

Error code for a non-optional property with a nil value.

Available in Mac OS X v10.4 and later.

Declared in `CoreDataErrors.h`.

`NSValidationRelationshipLacksMinimumCountError`

Error code to denote a to-many relationship with too few destination objects.

Available in Mac OS X v10.4 and later.

Declared in `CoreDataErrors.h`.

`NSValidationRelationshipExceedsMaximumCountError`

Error code to denote a bounded to-many relationship with too many destination objects.

Available in Mac OS X v10.4 and later.

Declared in `CoreDataErrors.h`.

`NSValidationRelationshipDeniedDeleteError`

Error code to denote some relationship with delete rule `NSDeleteRuleDeny` is non-empty.

Available in Mac OS X v10.4 and later.

Declared in `CoreDataErrors.h`.

`NSValidationNumberTooLargeError`

Error code to denote some numerical value is too large.

Available in Mac OS X v10.4 and later.

Declared in `CoreDataErrors.h`.

`NSValidationNumberTooSmallError`

Error code to denote some numerical value is too small.

Available in Mac OS X v10.4 and later.

Declared in `CoreDataErrors.h`.

`NSValidationDateTooLateError`

Error code to denote some date value is too late.

Available in Mac OS X v10.4 and later.

Declared in `CoreDataErrors.h`.

`NSValidationDateTooSoonError`

Error code to denote some date value is too soon.

Available in Mac OS X v10.4 and later.

Declared in `CoreDataErrors.h`.

`NSValidationInvalidDateError`

Error code to denote some date value fails to match date pattern.

Available in Mac OS X v10.4 and later.

Declared in `CoreDataErrors.h`.

`NSValidationStringTooLongError`

Error code to denote some string value is too long.

Available in Mac OS X v10.4 and later.

Declared in `CoreDataErrors.h`.

`NSValidationStringTooShortError`

Error code to denote some string value is too short.

Available in Mac OS X v10.4 and later.

Declared in `CoreDataErrors.h`.

`NSValidationStringPatternMatchingError`

Error code to denote some string value fails to match some pattern.

Available in Mac OS X v10.4 and later.

Declared in `CoreDataErrors.h`.

Discussion

For additional error codes, including `NSValidationErrorMinimum` and `NSValidationErrorMaximum`, see `NSError`.

Object Graph Management Error Codes

These error codes specify Core Data errors related to object graph management.

<code>NSManagedObjectContextLockingError</code>	= 132000,
<code>NSPersistentStoreCoordinatorLockingError</code>	= 132010,
<code>NSManagedObjectContextReferentialIntegrityError</code>	= 133000,
<code>NSManagedObjectContextExternalRelationshipError</code>	= 133010,
<code>NSManagedObjectContextMergeError</code>	= 133020,

Constants

`NSManagedObjectContextLockingError`

Error code to denote an inability to acquire a lock in a managed object context.

Available in Mac OS X v10.4 and later.

Declared in `CoreDataErrors.h`.

`NSPersistentStoreCoordinatorLockingError`

Error code to denote an inability to acquire a lock in a persistent store.

Available in Mac OS X v10.4 and later.

Declared in `CoreDataErrors.h`.

`NSManagedObjectContextReferentialIntegrityError`

Error code to denote an attempt to fire a fault pointing to an object that does not exist.

The store is accessible, but the object corresponding to the fault cannot be found.

Available in Mac OS X v10.4 and later.

Declared in `CoreDataErrors.h`.

`NSManagedObjectContextExternalRelationshipError`

Error code to denote that an object being saved has a relationship containing an object from another store.

Available in Mac OS X v10.4 and later.

Declared in `CoreDataErrors.h`.

`NSManagedObjectContextMergeError`

Error code to denote that a merge policy failed—Core Data is unable to complete merging.

Available in Mac OS X v10.4 and later.

Declared in `CoreDataErrors.h`.

Persistent Store Error Codes

Error codes related to persistent stores.

<code>NSPersistentStoreInvalidTypeError</code>	= 134000,
<code>NSPersistentStoreTypeMismatchError</code>	= 134010,
<code>NSPersistentStoreIncompatibleSchemaError</code>	= 134020,
<code>NSPersistentStoreSaveError</code>	= 134030,
<code>NSPersistentStoreIncompleteSaveError</code>	= 134040,
<code>NSPersistentStoreOperationError</code>	= 134070,
<code>NSPersistentStoreOpenError</code>	= 134080,
<code>NSPersistentStoreTimeoutError</code>	= 134090,
<code>NSPersistentStoreIncompatibleVersionHashError</code>	= 134100,

Constants

`NSPersistentStoreInvalidTypeError`

Error code to denote an unknown persistent store type/format/version.

Available in Mac OS X v10.4 and later.

Declared in `CoreDataErrors.h`.

`NSPersistentStoreTypeMismatchError`

Error code returned by a persistent store coordinator if a store is accessed that does not match the specified type.

Available in Mac OS X v10.4 and later.

Declared in `CoreDataErrors.h`.

`NSPersistentStoreIncompatibleSchemaError`

Error code to denote that a persistent store returned an error for a save operation.

This code pertains to database level errors such as a missing table.

Available in Mac OS X v10.4 and later.

Declared in `CoreDataErrors.h`.

`NSPersistentStoreSaveError`

Error code to denote that a persistent store returned an error for a save operation.

This code pertains to errors such as permissions problems.

Available in Mac OS X v10.4 and later.

Declared in `CoreDataErrors.h`.

`NSPersistentStoreIncompleteSaveError`

Error code to denote that one or more of the stores returned an error during a save operations.

The stores or objects that failed are in the corresponding user info dictionary of the `NSError` object.

Available in Mac OS X v10.4 and later.

Declared in `CoreDataErrors.h`.

`NSPersistentStoreOperationError`

Error code to denote that a persistent store operation failed.

Available in Mac OS X v10.5 and later.

Declared in `CoreDataErrors.h`.

`NSPersistentStoreOpenError`

Error code to denote an error occurred while attempting to open a persistent store.

Available in Mac OS X v10.5 and later.

Declared in `CoreDataErrors.h`.

`NSPersistentStoreTimeoutError`

Error code to denote that Core Data failed to connect to a persistent store within the time specified by `NSPersistentStoreTimeoutOption`.

Available in Mac OS X v10.5 and later.

Declared in `CoreDataErrors.h`.

`NSPersistentStoreIncompatibleVersionHashError`

Error code to denote that entity version hashes in the store are incompatible with the current managed object model.

Available in Mac OS X v10.5 and later.

Declared in `CoreDataErrors.h`.

Migration Error Codes

Error codes related to store migration.

<code>NSMigrationError</code>	= 134110,
<code>NSMigrationCancelledError</code>	= 134120,
<code>NSMigrationMissingSourceModelError</code>	= 134130,
<code>NSMigrationMissingMappingModelError</code>	= 134140,
<code>NSMigrationManagerSourceStoreError</code>	= 134150,
<code>NSMigrationManagerDestinationStoreError</code>	= 134160,
<code>NSEntityMigrationPolicyError</code>	= 134170,
<code>NSInferredMappingModelError</code>	= 134190,
<code>NSExternalRecordImportError</code>	= 134200,

Constants

`NSMigrationError`

Error code to denote a general migration error.

Available in Mac OS X v10.5 and later.

Declared in `CoreDataErrors.h`.

`NSMigrationCancelledError`

Error code to denote that migration failed due to manual cancellation.

Available in Mac OS X v10.5 and later.

Declared in `CoreDataErrors.h`.

`NSMigrationMissingSourceModelError`

Error code to denote that migration failed due to a missing source data model.

Available in Mac OS X v10.5 and later.

Declared in `CoreDataErrors.h`.

`NSMigrationMissingMappingModelError`

Error code to denote that migration failed due to a missing mapping model.

Available in Mac OS X v10.5 and later.

Declared in `CoreDataErrors.h`.

`NSMigrationManagerSourceStoreError`

Error code to denote that migration failed due to a problem with the source data store.

Available in Mac OS X v10.5 and later.

Declared in `CoreDataErrors.h`.

`NSMigrationManagerDestinationStoreError`

Error code to denote that migration failed due to a problem with the destination data store.

Available in Mac OS X v10.5 and later.

Declared in `CoreDataErrors.h`.

`NSEntityMigrationPolicyError`

Error code to denote that migration failed during processing of an entity migration policy.

Available in Mac OS X v10.5 and later.

Declared in `CoreDataErrors.h`.

`NSInferredMappingModelError`

Error code to denote a problem with the creation of an inferred mapping model.

Available in Mac OS X v10.6 and later.

Declared in `CoreDataErrors.h`.

`NSExternalRecordImportError`

Error code to denote a general error encountered while importing external records.

Available in Mac OS X v10.6 and later.

Declared in `CoreDataErrors.h`.

General Error Codes

Error codes that denote a general error.

`NSCoreDataError`

= 134060,

`NSSQLiteError`

= 134180,

Constants

`NSCoreDataError`

Error code to denote a general Core Data error.

Available in Mac OS X v10.5 and later.

Declared in `CoreDataErrors.h`.

`NSSQLiteError`

Error code to denote a general SQLite error.

Available in Mac OS X v10.5 and later.

Declared in `CoreDataErrors.h`.

Core Data Version Number

Specifies the current Core Data version number.

```
COREDATA_EXTERN double NSCoreDataVersionNumber;
```

Constants

`NSCoreDataVersionNumber`

Specifies the version of Core Data available in the current process.

Available in Mac OS X v10.4 and later.

Declared in `CoreDataDefines.h`.

Discussion

See [“Core Data Version Numbers”](#) (page 13) for defined versions.

Core Data Version Numbers

Specify Core Data version numbers.

```
#define NSCoreDataVersionNumber10_4      46.0
#define NSCoreDataVersionNumber10_4_3    77.0
#define NSCoreDataVersionNumber10_5      185.0
#define NSCoreDataVersionNumber10_5_3    186.0
```

Constants

`NSCoreDataVersionNumber10_4`

Specifies the Core Data version number released with Mac OS X v10.4.0.

Available in Mac OS X v10.5 and later.

Declared in `CoreDataDefines.h`.

`NSCoreDataVersionNumber10_4_3`

Specifies the Core Data version number released with Mac OS X v10.4.3.

Available in Mac OS X v10.5 and later.

Declared in `CoreDataDefines.h`.

`NSCoreDataVersionNumber10_5`

Specifies the Core Data version number released with Mac OS X v10.5.0.

Available in Mac OS X v10.6 and later.

Declared in `CoreDataDefines.h`.

`NSCoreDataVersionNumber10_5_3`

Specifies the Core Data version number released with Mac OS X v10.5.3.

Available in Mac OS X v10.6 and later.

Declared in `CoreDataDefines.h`.

Discussion

See [“Core Data Version Number”](#) (page 12) for the current version.

Document Revision History

This table describes the changes to *Core Data Constants Reference*.

Date	Notes
2009-02-24	Updated for iPhone OS 3.0.
2007-01-18	Updated for Mac OS X v10.5.
2006-05-23	First publication of this content as a separate document.

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