



addRetrieveOrder:(DBRetrieveOrder)anOrder for:(id <DBProperties>)aProperty

Associates a retrieval order with the property aProperty. The permissible values of anOrder are:

binderDelegate

Returns the delegate used by the DBRecordStream's DBBinder objects.

setBinderDelegate:

cancelFetch

Terminates the current fetch operation this is generally only of use if the DBRecordStream is fetching.  
Returns self.

fetchUsingQualifier:

clear

Resets the DBRecordStream. The DBRecordStream's record data, list of properties, and list of keys are emptied. Its database instance variable is set to nil, but its delegate remains unchanged. Its status is reset.  
Returns self.

currentRetrieveStatus, free

(DBRecordRetrieveStatus)currentRetrieveStatus

Returns the DBRecordStream's status, which can be:

delegate

Returns the DBRecordStream's delegate or nil if no delegate has been set.

setDelegate:, recordStream:willFailForReason: (delegate method)

deleteRecord

Deletes the current record in the DBRecordStream and causes the DBRecordStream to access the database if any.

Returns nil if the deletion can't be accomplished otherwise, returns self. If the deletion fails, the DBRecordStream attempts to notify its delegate of the reason, and the cursor remains unchanged (pointing to the record that was deleted but wasn't).

recordStream:willFailForReason: (delegate method)

cancelFetch, setProperties:ofSource:

free

Releases the storage for the DBRecordStream.

(List \*)getKeyProperties:(List \*)keyList

Fills keyList with objects that represent the key properties of the DBRecordStream. Each of these objects conforms to the DBProperties protocol. Returns the newly filled List object.

setKeyProperties:

(List \*)getProperties:(List \*)propertyList

Places the DBRecordStream's property list in propertyList and returns propertyList.

setProperties:ofSource:

getRecordKeyValue:(DBValue \*)aValue

Places the value of the current record's key property (or properties) in aValue.

This method is especially useful when data must be exchanged between DBRecordStreams. For example, one DBRecordStream supplies employee information and another supplies department information to the application. A user can change an employee's department by selecting from a list of department names. When a department name is selected, you can use getRecordKeyValue: to determine the corresponding record key. Then you can set the department identification in the employee's record.

Returns nil if the DBRecordStream has status DB\_NotReady otherwise, returns aValue.

getValue:(DBValue \*)aValue forProperty:aProperty

Places the value for aProperty into aValue. This method is the only means of retrieving record data from a DBRecordStream.

When aProperty is a relationship, the method sets aValue so that it includes the key value of the relationship and the entity that is the relationship's target. (In that case, sending aValue the DBValue YES would get the response YES.) The fact that the value object identifies the target entity is exploited by setProperties:ofSource:.

If the status of the DBRecordStream is DB\_NotReady, this method return nil. Otherwise, it returns

setValueFor:from:, propertyNamed: (DBDatabase), isEntity (DBValues protocol), setProperties:

init

database NO otherwise.

isNewRecord

(BOOL)isNewRecord

Returns YES if the current record is new that is, it the result of the DBRecordStream receiving a new record, isModified

(BOOL)isReadOnly

Returns YES if the records in the DBRecordStream can only be read, not modified. If a DBRecordStream's properties haven't been set, isReadOnly will return YES.

setKeyProperties:, getKeyProperties:

newRecord

Creates a new, empty record. Before this operation can take place, the DBRecordStream attempts to save the current record to the database. If these changes can't be saved, newRecord returns nil, no new record is created and the cursor is not advanced. Otherwise, newRecord returns self, and the cursor is advanced to the next current record.

saveModifications

(unsigned int)saveModifications

Saves the new or modified record to the database. If the database supports transactions and there's a transaction in progress, this save operation is nested within a new transaction.

If there is no transaction in progress, a new transaction is created for this operation. If the modifications are saved to the database, this transaction is committed. An error during this commit process raises a DB\_TRANSACTION\_EXCEPTION exception.

Returns these values:

areTransactionsEnabled (DBDatabase), beginTransaction (DBDatabase)

setBinderDelegate:newDelegate

delegate, recordStream:willFailForReason: (delegate method)

(List \*)setKeyProperties:(List \*)propertyList

Sets the DBRecordStream's list of key properties to propertyList. Each of the objects in propertyList must conform to the DBProperties protocol. Typically, key properties are identified in the database model using DBModelKeyProperties. To invoke this method.

Returns nil if any property in propertyList is not a property of the DBRecordStream's source otherwise returns the property list.

getKeyProperties:

setNext

Advances the DBRecordStream's internal cursor by 1, so that it points to the next record in the group of records available by a fetch operation.

Returns self if successful and nil if not. A nil return can mean that there are no further records to read or that the DBRecordStream was unable to save modifications to the current record.

saveModifications

(List \*)setProperties:(List \*)propertyList ofSource:aSource

Sets the properties that will be fetched or stored by a DBRecordStream, or its subclass, a DBRecordList. The properties transferred will be those contained in propertyList. The argument aSource specifies the entity that the properties in this list are associated with. This is typically a DBEntities object that's the "root" of all the properties in the property list. If aSource is nil, the first property in propertyList is used.

The argument aSource can also be a DBValue object that's gotten by asking for the value for a relationship on a database storage object that has already fetched data. The DBValue object encodes the relationship's attributes and the record that when the receiving DBRecordStream fetches, it qualifies the fetch to select the "detail" record from whence the DBValue was plucked.

The application should send a setProperties:ofSource: message before doing anything with a DBRecordStream or a DBRecordList. Once the list of properties has been set, the application can send fetchUsingQualifiers: to the list of properties that has been set. To a DBRecordList, the application can also send fetchUsingQualifiers: and can make multiple inserts or multiple deletes. (After once calling setProperties:ofSource:, you should not call setProperties:ofSource: until you really need to establish a new property list, since each use discards any prior data without saving it.)

Returns nil if the properties in propertyList don't share the same entity or if some other error occurs, otherwise returns self.

getProperties:, getValue:forProperty:, isEntity (DBValues protocol)

setValue:(DBValue \*)aValue forProperty:aProperty

Sets the value for aProperty in the current record to that contained in aValue. Returns a nonzero value if successful, otherwise, returns nil.

returning YES to this message acknowledges the failure and permits the operation to be aborted, the local transaction of which it is part.

saveModifications, setDelegate:, delegate

(BOOL)recordStreamPrepareCurrentRecordForModification:aRecordStream

Notifies the delegate of a proposed modification to the current record, verifies that the record is unique, and asks the delegate to proceed only if the return is YES.

If implemented, this delegate method provides an alternative to the standard check that a DBRecordStream performs before deleting or modifying a record. (The DBRecordStream or its subclass normally verifies that the record exists and that it is unique. It invokes a <sup>a</sup>confirming select<sup>o</sup> on the DBDatabase using the key value, and the record's key and other properties to see that none has changed. The select is usually a locking select.) This delegate method provides an alternative mechanism, making the delegate responsible for verification and locking. If the method returns YES, the record is considered to be verified, and modification proceeds. If the method returns NO, the record is not verified, and modification is not performed. If the method returns YES, cause the entire sequence containing saveModifications: to fail, depending on the transaction mode.

This method should not call any of the methods implemented by DBRecordStream or DBRecordStreamDelegate: forProperty: