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`addExpression:newExpression`

Adds the DBProperties-conforming object `anExpression` to the list of expressions that the `DBFetchGroup` fetches from the database. Typically, you add instances of `DBExpression`, although it's also possible to add properties gotten from a database model.

When you add an expression object to a `DBFetchGroup`, the `DBFetchGroup` "owns" the object and is responsible for freeing it. If you don't want to surrender control of your expression objects, you should create a copy of the object (the copies in invocations of this method). If you're adding a model property, then you must copy it (using `DBExpression` to cover it).

Returns `self`.

`clearCurrentRecord`

Deselects the currently selected record (or records), so that there is no selected record. `DBAssociations` that have been involved in the formerly selected records are notified of the change. Returns `self`. However, if you do not have permission to change the rows of the `DBFetchGroup`'s `DBRecordList`, the method has no effect and returns `nil`.

`(unsigned int)currentRecord`

Returns the position (index number) of the current record in the `DBFetchGroup`'s `DBRecordList`.

`delegate`

Returns the `DBFetchGroup`'s delegate.

`setDelegate`

`deleteCurrentSelection`

Deletes the currently selected row (or rows) from the `DBFetchGroup`'s `DBRecordList`. Following the deletion, the row(s) are no longer selected. All `DBAssociations` are notified of the change.

Returns `self`. However, if no rows were selected, or there is no permission to change the rows of the `DBRecordList`, the method has no effect and returns `nil`.

`discardChanges`

Terminates any editing changes currently in progress for this `DBFetchGroup` and recursively for all `DBFetchGroups`. All the `DBAssociations` involved are notified so that they can update the display. Returns `self`.

Returns the DBEntity to which the DBFetchGroup belongs.

fetchContentsOf:aSource usingQualifier:aQualifier

Replaces the content of the current DBRecordList by records fetched from the database. Any editing done since the last fetch group is terminated and changes are lost. The argument aSource may be nil, in which case all records in the DBFetchGroup's entity are fetched. If aSource is a DBValue containing NULL, the effect is to clear the current DBRecordList without fetching any new records.

Alternatively, aSource may be a DBValue that specifies a relationship. For example, suppose the parent entity is called Department and the child entity is called Employees, containing the employees belonging to each department. The aSource DBValue may contain a specific value for the property "Department Number" and also the entity to which it applies (Employees). Records will be fetched for all employees in the indicated department, using the key "Department Number" as a foreign key that qualifies the selection of records from Employees.

The argument aQualifier is a DBQualifier that further restricts the records that will be fetched.

If the parent DBModule's delegate responds to fetchGroupWillFetch:, it is notified. Similarly, after the parent DBModule's delegate responds to fetchGroupDidFetch:, it is notified. Provided the fetch is successful, all DBAssociations are notified that the contents of their views has changed, so they can redraw themselves. The record index is set to 0 (the index of the first record). Returns self.

(BOOL)hasUnsavedChanges

Returns YES if there are unsaved changes in this DBFetchGroup's DBRecordList, or in any of its child DBRecordLists, and NO otherwise.

initWithEntity:anEntity

Initializes an instance of DBFetchGroup. The fetch group thus initialized will coordinate fetches from the DBModule from the DBEntity named anEntity. Returns self.

(BOOL)insertNewRecordAt:(unsigned int)index

Instructs the DBFetchGroup's DBRecordList to insert a new record at the position indicated by index. If index is negative, the method appends the new record (that is, inserts it at the end of the DBRecordList instance).

Returns YES if the DBRecordList is able to comply, and NO otherwise. A NO return may arise if the user does not have authorization to modify rows, if no records have been fetched, or if for any reason the DBRecordList is unable to insert the record.

If the DBFetchGroup has appointed a delegate and the delegate implements the method fetchGroupWillInsertNewRecordAt:, the method insertNewRecordAt: notifies the delegate. The delegate may then fill in default values for the new record.

makeAssociationFrom:anExpr to:aView

(const char *)name

Returns the name of the DBFetchGroup. Fetch groups that are created automatically are given names assigned in the model. Fetch groups that were created by the application and initialized (for initEntity:) remain unnamed until explicitly named by setName:.

setName:

(unsigned int)recordCount

Returns the number of records in the DBFetchGroup's DBRecordList.

recordList

Returns the DBRecordList instance that the receiving DBFetchGroup serves.

redisplayEverything

Causes redisplay of all the fields governed by the DBFetchGroup's DBAssociations. (The redisplay sends all the DBAssociations a notification that the contents changed, and they respond in the same way as if they had received another change to their contents.) As a side effect, this method checks the value of the current record's range, sets it to the index of the last record. Returns self.

removeAssociation:anAssociation

Removes the indicated association from the DBFetchGroup's list of associations. Returns self.

saveChanges

Saves changes made to any of the records governed by the receiving DBFetchGroup and any subordinated DBFetchGroups. Before saving, the method terminates any editing that may have been in progress on any subordinated DBFetchGroups. After saving, notifies the DBModule's delegate that the save took place. Returns self.

(unsigned int)selectedRowAfter:(unsigned int)previousRow

Returns the index of the first selected row that is located after the row specified by previousRow. If no row is selected after previousRow, returns DB_NoIndex. If multiple rows are selected after previousRow, the return is the index of the first of them.)

If no row is selected, or the only selected rows occur earlier than previousRow, returns DB_NoIndex. The methods interpret to mean "after the last record".

setCurrentRecord:(unsigned int)newIndex

Sets the index of the current record to newIndex. However, if the proposed value is less than the first record, sets it to the first record if the proposed value is greater than the last record, sets it the last record. If this method changes the current record index, the DBFetchGroup's DBAssociations are notified that they have changed (and can update the display accordingly). Returns self.

setDelegate:anObject

Makes anObject the DBFetchGroup's delegate. Returns self.

delegate

setName:(const char *)aName

Sets the name of the DBFetchGroup. This method is invoked automatically when the fetch group is created. An application will need to call it explicitly only if you explicitly create a new fetch group. Returns self.

name

takeValueFromAssociation:anAssociation

Takes a value from the part of the display governed by anAssociation, and inserts it in the corresponding DBFetchGroup's DBRecordList. The method then updates the display of other displayed fields through other DBAssociations belonging to the same DBFetchGroup. Returns self.

(BOOL)validateCurrentRecord

Returns YES if changes that have been proposed for the current record are valid (or if there is no change).

The validation is done in two stages. If there is a TextField editor for the field that changed, it revises the value. If the TextField editor says NO, that's the return. If there is no text field editor, or the editor raises a change, the task of validation is passed to the DBModule's delegate. (Each DBFetchGroup is owned by a DBModule. Whatever the delegate returns becomes the return for this method.

fetchGroup:fetchGroup didInsertRecordAt:(int)index

Notification that the DBFetchGroup fetchGroup has inserted a record in its DBRecordList at the position index.

fetchGroup:fetchGroup willDeleteRecordAt:(int)index

(DBFailureResponse)fetchGroup:fetchGroup willFailForReason:(DBFailureCode)code

Invoked when a failure is reported from the DBRecordList owned by fetchGroup. The reason for is one of the following DBFailureCodes:

- DB_ReasonUnknown = 0
- DB_RecordBusy
- DB_RecordStreamNotReady
- DB_RecordHasChanged
- DB_RecordLimitReached
- DB_NoRecordKey
- DB_RecordKeyNotUnique
- DB_NoAdaptor
- DB_AdaptorError
- DB_TransactionError

The failure response that is returned must be one of the following constants, declared as type DBFailureCode in the header file dbkit/enums.h:

DB_NotHandledDisplays a default attention panel but takes no other action

DB_AbortTerminates the operation that encountered the error in its present state, and displays a default attention panel.

DB_ContinueIgnores the problem permits the action to continue if possible.

If the delegate does not implement this method, the effect is the same as returning DB_NotHandled.

(BOOL)fetchGroup:fetchGroup willValidateRecordAt:(int)index

Notification that the DBFetchGroup fetchGroup, while preparing to save its DBRecordList, has reached a point where it would be appropriate to insert validity checks on the record indicated by index. These might include checks for internal consistency between fields, or even checks that require a separate query to the database. Validity checks (e.g. "Is this a valid phone number?" or "Is this in a valid format for a telephone number?") should be implemented in the field editor notices that the user has changed a field's display (see the DBModule delegate method).

If your implementation of fetchGroup:willValidateRecordAt: returns YES (or if your delegate does not implement the method), the record is treated as valid. If it returns NO, the record is treated as invalid, the attempt to save is aborted, and the user is notified by an attention panel.

fetchGroupDidFetch:fetchGroup

Invoked when fetchGroup has completed a fetch from the database.

fetchGroupDidSave:fetchGroup

Invoked when fetchGroup has completed a save to the database.

fetchGroupWillChange:fetchGroup

Invoked when fetchGroup is about to record change based on input from the user interface.

(BOOL)fetchGroupWillSave:fetchGroup

Invoked when fetchGroup is about to save the contents of the fetch group to the database.