Database Manager

Return Types

JSFoundSet JSColumn JSDataSet JSFoundSetUpdater JSTable JSRecord QBAggregate QBColumn QBColumns QBCondition QBFunction QBFunctions QBGroupBy QBJoin QBJoins QBLogicalCondition QBParameter QBParameters QBPart QBResult QBSelect QBSort QBSorts QBTableClause QBWhereCondition QUERY_COLUMN_TYPES SQL_ACTION_TYPES

Property Summary

Boolean	nullColumnValidatorEnabled Enable/disable the default null validator for non null columns, makes it possible todo the checks later on when saving, when for example autosave is disabled.

Method Summary

Boolean	acquireLock(foundset, recordIndex) Request lock(s) for a foundset, can be a normal or related foundset.
Boolean	acquireLock(foundset, recordIndex, lockName) Request lock(s) for a foundset, can be a normal or related foundset.
Boolean	addTableFilterParam(datasource, dataprovider, operator, value) Adds a filter to all the foundsets based on a table.
Boolean	addTableFilterParam(datasource, dataprovider, operator, value, filterName) Adds a filter to all the foundsets based on a table.
Boolean	addTableFilterParam(serverName, tableName, dataprovider, operator, value) Adds a filter to all the foundsets based on a table.
Boolean	addTableFilterParam(serverName, tableName, dataprovider, operator, value, filterName) Adds a filter to all the foundsets based on a table.
void	addTrackingInfo(columnName, value) Add tracking info used in the log table.
Boolean	commitTransaction() Returns true if a transaction is committed; rollback if commit fails.
Boolean	commitTransaction(saveFirst) Returns true if a transaction is committed; rollback if commit fails.
Boolean	commitTransaction(saveFirst, revertSavedRecords) Returns true if a transaction is committed; rollback if commit fails.
JSFoundSet	convertFoundSet(foundset, related) Creates a foundset that combines all the records of the specified one-to-many relation seen from the given parent/primary foundset.
JSFoundSet	convertFoundSet(foundset, related) Creates a foundset that combines all the records of the specified one-to-many relation seen from the given parent/primary foundset.
JSDataSet	convertToDataSet(foundset) Converts the argument to a JSDataSet, possible use in controller.
JSDataSet	convertToDataSet(foundset, dataproviderNames) Converts the argument to a JSDataSet, possible use in controller.
JSDataSet	convertToDataSet(values) Converts the argument to a JSDataSet, possible use in controller.
JSDataSet	convertToDataSet(values, dataproviderNames) Converts the argument to a JSDataSet, possible use in controller.
JSDataSet	convertToDataSet(ids) Converts the argument to a JSDataSet, possible use in controller.
Boolean	copyMatchingFields(source, destination) Copies all matching non empty columns (if overwrite boolean is given all columns except pk/ident, if array then all columns except pk and array names).
Boolean	copyMatchingFields(source, destination, overwrite) Copies all matching non empty columns (if overwrite boolean is given all columns except pk/ident, if array then all columns except pk and array names).
Boolean	copyMatchingFields(source, destination, names) Copies all matching non empty columns (if overwrite boolean is given all columns except pk/ident, if array then all columns except pk and array names).
String	createDataSourceByQuery(name, query, max_returned_rows) Performs a query and saves the result in a datasource.
String	createDataSourceByQuery(name, query, max_returned_rows, types) Performs a query and saves the result in a datasource.
String	createDataSourceByQuery(name, query, max_returned_rows, types, pkNames) Performs a query and saves the result in a datasource.

String	createDataSourceByQuery(name, server_name, sql_query, arguments, max_returned_rows) Performs a sql query on the specified server, saves the the result in a datasource.
String	createDataSourceByQuery(name, server_name, sql_query, arguments, max_returned_rows, types) Performs a sql query on the specified server, saves the the result in a datasource.
String	createDataSourceByQuery(name, server_name, sql_query, arguments, max_returned_rows, types, pkNames) Performs a sql query on the specified server, saves the the result in a datasource.
JSDataSet	createEmptyDataSet() Returns an empty dataset object.
JSDataSet	createEmptyDataSet(rowCount, columnCount) Returns an empty dataset object.
JSDataSet	createEmptyDataSet(rowCount, columnNames) Returns an empty dataset object.
QBSelect	createSelect(dataSource) Create a QueryBuilder object for a datasource.
Boolean	dataSourceExists(datasource) Check wether a data source exists.
Boolean	getAutoSave() Returns true or false if autosave is enabled or disabled.
String[]	getDataModelClonesFrom(serverName) Retrieves a list with names of all database servers that have property DataModelCloneFrom equal to the server name parameter.
JSDataSet	getDataSetByQuery(query, max_returned_rows) Performs a sql query with a query builder object.
JSDataSet	getDataSetByQuery(server_name, sql_query, arguments, max_returned_rows) Performs a sql query on the specified server, returns the result in a dataset.
String	getDataSource(serverName, tableName) Returns the datasource corresponding to the given server/table.
String	getDataSourceServerName(dataSource) Returns the server name from the datasource, or null if not a database datasource.
String	getDataSourceTableName(dataSource) Returns the table name from the datasource, or null if not a database datasource.
String	getDatabaseProductName(serverName) Returns the database product name as supplied by the driver for a server.
JSRecord[]	getEditedRecords() Returns an array of edited records with outstanding (unsaved) data.
JSRecord[]	getEditedRecords(foundset) Returns an array of edited records with outstanding (unsaved) data.
JSRecord[]	getFailedRecords() Returns an array of records that fail after a save.
JSRecord[]	getFailedRecords(foundset) Returns an array of records that fail after a save.
JSFoundSet	getFoundSet(query) Returns a foundset object for a specified pk query.
JSFoundSet	getFoundSet(dataSource) Returns a foundset object for a specified datasource or server and tablename.
JSFoundSet	getFoundSet(serverName, tableName) Returns a foundset object for a specified datasource or server and tablename.
Number	getFoundSetCount(foundset) Returns the total number of records in a foundset.
JSFoundSetUpdater	getFoundSetUpdater(foundset) Returns a JSFoundsetUpdater object that can be used to update all or a specific number of rows in the specified foundset.
Object	getNextSequence(dataSource, columnName) Gets the next sequence for a column which has a sequence defined in its column dataprovider properties.
String	getSQL(foundset) Returns the internal SQL which defines the specified (related)foundset.
String	getSQL(foundset, includeFilters) Returns the internal SQL which defines the specified (related)foundset.
Object[]	getSQLParameters(foundset) Returns the internal SQL parameters, as an array, that are used to define the specified (related)foundset.
Object[]	getSQLParameters(foundset, includeFilters) Returns the internal SQL parameters, as an array, that are used to define the specified (related)foundset.
String[]	getServerNames() Returns an array with all the server names used in the solution.
JSTable	getTable(foundset) Returns the JSTable object from which more info can be obtained (like columns).
JSTable	getTable(record) Returns the JSTable object from which more info can be obtained (like columns).
JSTable	getTable(dataSource) Returns the JSTable object from which more info can be obtained (like columns).
JSTable	getTable(serverName, tableName) Returns the JSTable object from which more info can be obtained (like columns).
Number	getTableCount(dataSource) Returns the total number of records(rows) in a table.
Object[][]	getTableFilterParams(serverName) Returns a two dimensional array object containing the table filter information currently applied to the servers tables.
Object[][]	getTableFilterParams(serverName, filterName) Returns a two dimensional array object containing the table filter information currently applied to the servers tables.

String[]	getTableNames(serverName) Returns an array of all table names for a specified server.
String[]	getViewNames(serverName) Returns an array of all view names for a specified server.
Boolean	hasLocks() Returns true if the current client has any or the specified lock(s) acquired.
Boolean	hasLocks(lockName) Returns true if the current client has any or the specified lock(s) acquired.
Boolean	hasNewRecords(foundset) Returns true if the argument (foundSet / record) has at least one row that was not yet saved in the database.
Boolean	hasNewRecords(foundset, index) Returns true if the argument (foundSet / record) has at least one row that was not yet saved in the database.
Boolean	hasRecordChanges(foundset) Returns true if the specified foundset, on a specific index or in any of its records, or the specified record has changes.
Boolean	hasRecordChanges(foundset, index) Returns true if the specified foundset, on a specific index or in any of its records, or the specified record has changes.
Boolean	hasRecords(foundset) Returns true if the (related)foundset exists and has records.
Boolean	hasRecords(record, relationString) Returns true if the (related)foundset exists and has records.
Boolean	hasTransaction() Returns true if there is an transaction active for this client.
Boolean	mergeRecords(sourceRecord, combinedDestinationRecord) Merge records from the same foundset, updates entire datamodel (via foreign type on columns) with destination record pk, deletes source record.
Boolean	mergeRecords(sourceRecord, combinedDestinationRecord, columnNames) Merge records from the same foundset, updates entire datamodel (via foreign type on columns) with destination record pk, deletes source record.
void	recalculate(foundsetOrRecord) Can be used to recalculate a specified record or all rows in the specified foundset.
Boolean	refreshRecordFromDatabase(foundset, index) Flushes the client data cache and requeries the data for a record (based on the record index) in a foundset or all records in the foundset.
Boolean	releaseAllLocks() Release all current locks the client has (optionally limited to named locks).
Boolean	releaseAllLocks(lockName) Release all current locks the client has (optionally limited to named locks).
Boolean	removeTableFilterParam(serverName, filterName) Removes a previously defined table filter.
void	revertEditedRecords() Reverts outstanding (not saved) in memory changes from edited records.
void	revertEditedRecords(foundset) Reverts outstanding (not saved) in memory changes from edited records.
void	rollbackTransaction() Rollback a transaction started by databaseManager.
void	rollbackTransaction(rollbackEdited) Rollback a transaction started by databaseManager.
void	rollbackTransaction(rollbackEdited, revertSavedRecords) Rollback a transaction started by databaseManager.
Boolean	saveData() Saves all outstanding (unsaved) data and exits the current record.
Boolean	saveData(foundset) Saves all outstanding (unsaved) data and exits the current record.
Boolean	saveData(record) Saves all outstanding (unsaved) data and exits the current record.
Boolean	setAutoSave(autoSave) Set autosave, if false then no saves will happen by the ui (not including deletes!).
void	setCreateEmptyFormFoundsets() Turnoff the initial form foundset record loading, set this in the solution open method.
void	startTransaction() Start a database transaction.
Boolean	switchServer(sourceName, destinationName) Switches a named server to another named server with the same datamodel (recommended to be used in an onOpen method for a solution).

Property Details

nullColumnValidatorEnabled

Enable/disable the default null validator for non null columns, makes it possible todo the checks later on when saving, when for example autosave is disabled.

Returns

Boolean

Sample

```
databaseManager.nullColumnValidatorEnabled = false;//disable

//test if enabled
if(databaseManager.nullColumnValidatorEnabled) application.output('null validation enabled')
```

Method Details

acquireLock

Boolean **acquireLock** (foundset, recordIndex)

Request lock(s) for a foundset, can be a normal or related foundset.
The record_index can be -1 to lock all rows, 0 to lock the current row, or a specific row of > 0
Optionally name the lock(s) so that it can be referenced it in releaseAllLocks()

returns true if the lock could be acquired.

Parameters

{JSFoundSet} foundset - The JSFoundset to get the lock for
{Number} recordIndex - The record index which should be locked.

Returns

Boolean - true if the lock could be acquired.

Sample

```
//locks the complete foundset
databaseManager.acquireLock(foundset,-1);

//locks the current row
databaseManager.acquireLock(foundset,0);

//locks all related orders for the current Customer
var success = databaseManager.acquireLock(Cust_to_Orders,-1);
if(!success)
{
	plugins.dialogs.showWarningDialog('Alert','Failed to get a lock','OK');
}
```

acquireLock

Boolean **acquireLock** (foundset, recordIndex, lockName)

Request lock(s) for a foundset, can be a normal or related foundset.
The record_index can be -1 to lock all rows, 0 to lock the current row, or a specific row of > 0
Optionally name the lock(s) so that it can be referenced it in releaseAllLocks()

returns true if the lock could be acquired.

Parameters

{JSFoundSet} foundset - The JSFoundset to get the lock for
{Number} recordIndex - The record index which should be locked.
{String} lockName - The name of the lock.

Returns

Boolean - true if the lock could be acquired.

Sample

```
//locks the complete foundset
databaseManager.acquireLock(foundset,-1);

//locks the current row
databaseManager.acquireLock(foundset,0);

//locks all related orders for the current Customer
var success = databaseManager.acquireLock(Cust_to_Orders,-1);
if(!success)
{
	plugins.dialogs.showWarningDialog('Alert','Failed to get a lock','OK');
}
```

addTableFilterParam

Boolean **addTableFilterParam** (datasource, dataprovider, operator, value)

Adds a filter to all the foundsets based on a table.
Note: if null is provided as the tablename the filter will be applied on all tables with the dataprovider name.
A dataprovider can have multiple filters defined, they will all be applied.
returns true if the tablefilter could be applied.

Parameters

{String} datasource - The datasource
{String} dataprovider - A specified dataprovider column name.
{String} operator - One of "=, <, >, >=, <=, !=, LIKE, or IN" optionally augmented with modifiers "#" (ignore case) or "^||" (or-is-null).
{Object} value - The specified filter value.

Returns

Boolean - true if the tablefilter could be applied.

Sample

```
// Best way to call this in a global solution startup method, but filters may be added/removed at any time.
// Note that multiple filters can be added to the same dataprovider, they will all be applied.

// filter on messages table where messagesid>10, the filter has a name so it can be removed using
databaseManager.removeTableFilterParam()
var success = databaseManager.addTableFilterParam('admin', 'messages', 'messagesid', '>', 10,
'higNumberedMessagesRule')

// all tables that have the companyid column should be filtered
var success = databaseManager.addTableFilterParam('crm', null, 'companyidid', '=', currentcompanyid)

// some filters with in-conditions
var success = databaseManager.addTableFilterParam('crm', 'products', 'productcode', 'in', [120, 144, 200])
var success = databaseManager.addTableFilterParam('crm', 'orders', 'countrycode', 'in', 'select country code
from countries where region = "Europe"')

// you can use modifiers in the operator as well, filter on companies where companyname is null or equals-
ignore-case 'servoy'
var success = databaseManager.addTableFilterParam('crm', 'companies', 'companyname', '#^||=', 'servoy')

// the value may be null, this will result in 'column is null' sql condition.
var success = databaseManager.addTableFilterParam('crm', 'companies', 'verified', '=', null)

//if you want to add a filter for a column (created by you) in the i18n table
databaseManager.addTableFilterParam('database', 'your_i18n_table', 'message_variant', 'in', [1, 2])
```

addTableFilterParam

Boolean **addTableFilterParam** (datasource, dataprovider, operator, value, filterName)

Adds a filter to all the foundsets based on a table.
Note: if null is provided as the tablename the filter will be applied on all tables with the dataprovider name.
A dataprovider can have multiple filters defined, they will all be applied.
returns true if the tablefilter could be applied.

Parameters

{String} datasource - The datasource
{String} dataprovider - A specified dataprovider column name.
{String} operator - One of "=, <, >, >=, <=, !=, LIKE, or IN" optionally augmented with modifiers "#" (ignore case) or "^||" (or-is-null).
{Object} value - The specified filter value.
{String} filterName - The specified name of the database table filter.

Returns

Boolean - true if the tablefilter could be applied.

Sample

```
// Best way to call this in a global solution startup method, but filters may be added/removed at any time.
// Note that multiple filters can be added to the same dataprovider, they will all be applied.

// filter on messages table where messagesid>10, the filter has a name so it can be removed using
databaseManager.removeTableFilterParam()
var success = databaseManager.addTableFilterParam('admin', 'messages', 'messagesid', '>', 10,
'higNumberedMessagesRule')

// all tables that have the companyid column should be filtered
var success = databaseManager.addTableFilterParam('crm', null, 'companyidid', '=', currentcompanyid)

// some filters with in-conditions
var success = databaseManager.addTableFilterParam('crm', 'products', 'productcode', 'in', [120, 144, 200])
var success = databaseManager.addTableFilterParam('crm', 'orders', 'countrycode', 'in', 'select country code
from countries where region = "Europe"')

// you can use modifiers in the operator as well, filter on companies where companyname is null or equals-
ignore-case 'servoy'
var success = databaseManager.addTableFilterParam('crm', 'companies', 'companyname', '#^||=', 'servoy')

// the value may be null, this will result in 'column is null' sql condition.
var success = databaseManager.addTableFilterParam('crm', 'companies', 'verified', '=', null)

//if you want to add a filter for a column (created by you) in the i18n table
databaseManager.addTableFilterParam('database', 'your_i18n_table', 'message_variant', 'in', [1, 2])
```

addTableFilterParam

Boolean **addTableFilterParam** (serverName, tableName, dataprovider, operator, value)

Adds a filter to all the foundsets based on a table.
Note: if null is provided as the tablename the filter will be applied on all tables with the dataprovider name.
A dataprovider can have multiple filters defined, they will all be applied.
returns true if the tablefilter could be applied.

Parameters

{String} serverName - The name of the database server connection for the specified table name.
{String} tableName - The name of the specified table.
{String} dataprovider - A specified dataprovider column name.
{String} operator - One of "=, <, >, >=, <=, !=, LIKE, or IN" optionally augmented with modifiers "#" (ignore case) or "^||" (or-is-null).
{Object} value - The specified filter value.

Returns

Boolean - true if the tablefilter could be applied.

Sample

```
// Best way to call this in a global solution startup method, but filters may be added/removed at any time.
// Note that multiple filters can be added to the same dataprovider, they will all be applied.

// filter on messages table where messagesid>10, the filter has a name so it can be removed using
databaseManager.removeTableFilterParam()
var success = databaseManager.addTableFilterParam('admin', 'messages', 'messagesid', '>', 10,
'higNumberedMessagesRule')

// all tables that have the companyid column should be filtered
var success = databaseManager.addTableFilterParam('crm', null, 'companyidid', '=', currentcompanyid)

// some filters with in-conditions
var success = databaseManager.addTableFilterParam('crm', 'products', 'productcode', 'in', [120, 144, 200])
var success = databaseManager.addTableFilterParam('crm', 'orders', 'countrycode', 'in', 'select country code
from countries where region = "Europe"')

// you can use modifiers in the operator as well, filter on companies where companyname is null or equals-
ignore-case 'servoy'
var success = databaseManager.addTableFilterParam('crm', 'companies', 'companyname', '#^||=', 'servoy')

// the value may be null, this will result in 'column is null' sql condition.
var success = databaseManager.addTableFilterParam('crm', 'companies', 'verified', '=', null)

//if you want to add a filter for a column (created by you) in the i18n table
databaseManager.addTableFilterParam('database', 'your_i18n_table', 'message_variant', 'in', [1, 2])
```

addTableFilterParam

Boolean **addTableFilterParam** (serverName, tableName, dataprovider, operator, value, filterName)

Adds a filter to all the foundsets based on a table.
Note: if null is provided as the tablename the filter will be applied on all tables with the dataprovider name.
A dataprovider can have multiple filters defined, they will all be applied.
returns true if the tablefilter could be applied.

Parameters

{String} serverName - The name of the database server connection for the specified table name.
{String} tableName - The name of the specified table.
{String} dataprovider - A specified dataprovider column name.
{String} operator - One of "=, <, >, >=, <=, !=, LIKE, or IN" optionally augmented with modifiers "#" (ignore case) or "^||" (or-is-null).
{Object} value - The specified filter value.
{String} filterName - The specified name of the database table filter.

Returns

Boolean - true if the tablefilter could be applied.

Sample

```
// Best way to call this in a global solution startup method, but filters may be added/removed at any time.
// Note that multiple filters can be added to the same dataprovider, they will all be applied.

// filter on messages table where messagesid>10, the filter has a name so it can be removed using
databaseManager.removeTableFilterParam()
var success = databaseManager.addTableFilterParam('admin', 'messages', 'messagesid', '>', 10,
'higNumberedMessagesRule')

// all tables that have the companyid column should be filtered
var success = databaseManager.addTableFilterParam('crm', null, 'companyidid', '=', currentcompanyid)

// some filters with in-conditions
var success = databaseManager.addTableFilterParam('crm', 'products', 'productcode', 'in', [120, 144, 200])
var success = databaseManager.addTableFilterParam('crm', 'orders', 'countrycode', 'in', 'select country code
from countries where region = "Europe"')

// you can use modifiers in the operator as well, filter on companies where companyname is null or equals-
ignore-case 'servoy'
var success = databaseManager.addTableFilterParam('crm', 'companies', 'companyname', '#^||=', 'servoy')

// the value may be null, this will result in 'column is null' sql condition.
var success = databaseManager.addTableFilterParam('crm', 'companies', 'verified', '=', null)

//if you want to add a filter for a column (created by you) in the i18n table
databaseManager.addTableFilterParam('database', 'your_i18n_table', 'message_variant', 'in', [1, 2])
```

addTrackingInfo

void **addTrackingInfo** (columnName, value)

Add tracking info used in the log table.
When tracking is enabled and a new row is inserted in the log table,
if it has a column named 'columnName', its value will be set with 'value'

Parameters

{String} columnName - The name of the column in the log table, used for tracking info
{Object} value - The value to be set when inserting a new row in the log table, for the 'columnName' column

Returns

void

Sample

```
databaseManager.addTrackingInfo('log_column_name', 'trackingInfo')
```

commitTransaction

Boolean **commitTransaction** ()

Returns true if a transaction is committed; rollback if commit fails.
Saves all edited records and commits the data.

Returns

Boolean - if the transaction could be committed.

Sample

```
// starts a database transaction
databaseManager.startTransaction()
//Now let users input data

//when data has been entered do a commit or rollback if the data entry is canceld or the the commit did fail.
if (cancel || !databaseManager.commitTransaction())
{
        databaseManager.rollbackTransaction();
}
```

commitTransaction

Boolean **commitTransaction** (saveFirst)

Returns true if a transaction is committed; rollback if commit fails.

Parameters

{Boolean} saveFirst - save edited records to the database first (default true)

Returns

Boolean - if the transaction could be committed.

Sample

```
// starts a database transaction
databaseManager.startTransaction()
//Now let users input data

//when data has been entered do a commit or rollback if the data entry is canceld or the the commit did fail.
if (cancel || !databaseManager.commitTransaction())
{
	databaseManager.rollbackTransaction();
}
```

commitTransaction

Boolean **commitTransaction** (saveFirst, revertSavedRecords)

Returns true if a transaction is committed; rollback if commit fails.

Parameters

{Boolean} saveFirst - save edited records to the database first (default true)
{Boolean} revertSavedRecords - if a commit fails and a rollback is done, the when given false the records are not reverted to the database state (and are in edited records again)

Returns

Boolean - if the transaction could be committed.

Sample

```
// starts a database transaction
databaseManager.startTransaction()
//Now let users input data

//when data has been entered do a commit or rollback if the data entry is canceld or the the commit did fail.
if (cancel || !databaseManager.commitTransaction())
{
	databaseManager.rollbackTransaction();
}
```

convertFoundSet

JSFoundSet **convertFoundSet** (foundset, related)

Creates a foundset that combines all the records of the specified one-to-many relation seen from the given parent/primary foundset. The created foundset will not contain records that have not been saved in the database, because the records in the foundset will be the result of a select query to the database.

Parameters

{JSFoundSet} foundset - The JSFoundset to convert.
{JSFoundSet} related - can be a one-to-many relation object or the name of a one-to-many relation

Returns

JSFoundSet - The converted JSFoundset.

Sample

```
// Convert in the order form a orders foundset into a orderdetails foundset,
// that has all the orderdetails from all the orders in the foundset.
var convertedFoundSet = databaseManager.convertFoundSet(foundset,order_to_orderdetails);
// or var convertedFoundSet = databaseManager.convertFoundSet(foundset,"order_to_orderdetails");
forms.orderdetails.controller.showRecords(convertedFoundSet);
```

convertFoundSet

JSFoundSet **convertFoundSet** (foundset, related)

Creates a foundset that combines all the records of the specified one-to-many relation seen from the given parent/primary foundset. The created foundset will not contain records that have not been saved in the database, because the records in the foundset will be the result of a select query to the database.

Parameters

{JSFoundSet} foundset - The JSFoundset to convert.
{String} related - the name of a one-to-many relation

Returns

JSFoundSet - The converted JSFoundset.

Sample

```
// Convert in the order form a orders foundset into a orderdetails foundset,
// that has all the orderdetails from all the orders in the foundset.
var convertedFoundSet = databaseManager.convertFoundSet(foundset,order_to_orderdetails);
// or var convertedFoundSet = databaseManager.convertFoundSet(foundset,"order_to_orderdetails");
forms.orderdetails.controller.showRecords(convertedFoundSet);
```

convertToDataSet

JSDataSet **convertToDataSet** (foundset)

Converts the argument to a JSDataSet, possible use in controller.loadRecords(dataset).
The optional array of dataprovider names is used (only) to add the specified dataprovider names as columns to the dataset.

Parameters

{JSFoundSet} foundset - The foundset to be converted.

Returns

JSDataSet - JSDataSet with the data.

Sample

```
// converts a foundset pks to a dataset
var dataset = databaseManager.convertToDataSet(foundset);
// converts a foundset to a dataset
//var dataset = databaseManager.convertToDataSet(foundset,['product_id','product_name']);
// converts an object array to a dataset
//var dataset = databaseManager.convertToDataSet(files,['name','path']);
// converts an array to a dataset
//var dataset = databaseManager.convertToDataSet(new Array(1,2,3,4,5,6));
// converts an string list to a dataset
//var dataset = databaseManager.convertToDataSet('4,5,6');
```

convertToDataSet

JSDataSet **convertToDataSet** (foundset, dataproviderNames)

Converts the argument to a JSDataSet, possible use in controller.loadRecords(dataset).
The optional array of dataprovider names is used (only) to add the specified dataprovider names as columns to the dataset.

Parameters

{JSFoundSet} foundset - The foundset to be converted.
{String[]} dataproviderNames - Array with column names.

Returns

JSDataSet - JSDataSet with the data.

Sample

```
// converts a foundset pks to a dataset
var dataset = databaseManager.convertToDataSet(foundset);
// converts a foundset to a dataset
//var dataset = databaseManager.convertToDataSet(foundset,['product_id','product_name']);
// converts an object array to a dataset
//var dataset = databaseManager.convertToDataSet(files,['name','path']);
// converts an array to a dataset
//var dataset = databaseManager.convertToDataSet(new Array(1,2,3,4,5,6));
// converts an string list to a dataset
//var dataset = databaseManager.convertToDataSet('4,5,6');
```

convertToDataSet

JSDataSet **convertToDataSet** (values)

Converts the argument to a JSDataSet, possible use in controller.loadRecords(dataset).
The optional array of dataprovider names is used (only) to add the specified dataprovider names as columns to the dataset.

Parameters

{Object[]} values - The values array.

Returns

JSDataSet - JSDataSet with the data.

Sample

```
// converts a foundset pks to a dataset
var dataset = databaseManager.convertToDataSet(foundset);
// converts a foundset to a dataset
//var dataset = databaseManager.convertToDataSet(foundset,['product_id','product_name']);
// converts an object array to a dataset
//var dataset = databaseManager.convertToDataSet(files,['name','path']);
// converts an array to a dataset
//var dataset = databaseManager.convertToDataSet(new Array(1,2,3,4,5,6));
// converts an string list to a dataset
//var dataset = databaseManager.convertToDataSet('4,5,6');
```

convertToDataSet

JSDataSet **convertToDataSet** (values, dataproviderNames)

Converts the argument to a JSDataSet, possible use in controller.loadRecords(dataset).
The optional array of dataprovider names is used (only) to add the specified dataprovider names as columns to the dataset.

Parameters

{Object[]} values - The values array.
{String[]} dataproviderNames - The property names array.

Returns

JSDataSet - JSDataSet with the data.

Sample

```
// converts a foundset pks to a dataset
var dataset = databaseManager.convertToDataSet(foundset);
// converts a foundset to a dataset
//var dataset = databaseManager.convertToDataSet(foundset,['product_id','product_name']);
// converts an object array to a dataset
//var dataset = databaseManager.convertToDataSet(files,['name','path']);
// converts an array to a dataset
//var dataset = databaseManager.convertToDataSet(new Array(1,2,3,4,5,6));
// converts an string list to a dataset
//var dataset = databaseManager.convertToDataSet('4,5,6');
```

convertToDataSet

JSDataSet **convertToDataSet** (ids)

Converts the argument to a JSDataSet, possible use in controller.loadRecords(dataset).
The optional array of dataprovider names is used (only) to add the specified dataprovider names as columns to the dataset.

Parameters

{String} ids - Concatenated values to be put into dataset.

Returns

JSDataSet - JSDataSet with the data.

Sample

```
// converts a foundset pks to a dataset
var dataset = databaseManager.convertToDataSet(foundset);
// converts a foundset to a dataset
//var dataset = databaseManager.convertToDataSet(foundset,['product_id','product_name']);
// converts an object array to a dataset
//var dataset = databaseManager.convertToDataSet(files,['name','path']);
// converts an array to a dataset
//var dataset = databaseManager.convertToDataSet(new Array(1,2,3,4,5,6));
// converts an string list to a dataset
//var dataset = databaseManager.convertToDataSet('4,5,6');
```

copyMatchingFields

Boolean **copyMatchingFields** (source, destination)

Copies all matching non empty columns (if overwrite boolean is given all columns except pk/ident, if array then all columns except pk and array names).
The matching requires the properties and getter functions of the source to match those of the destination; for the getter functions,
the 'get' will be removed and the remaining name will be converted to lowercase before attempting to match.
Returns true if no error occurred.

NOTE: This function could be used to store a copy of records in an archive table. Use the getRecord() function to get the record as an object.

Parameters

{Object} source - The source record or (java/javascript)object to be copied.
{JSRecord} destination - The destination record to copy to.

Returns

Boolean - true if no errors happened.

Sample

```
for( var i = 1 ; i <= foundset.getSize() ; i++ )
{
        var srcRecord = foundset.getRecord(i);
        var destRecord = otherfoundset.getRecord(i);
        if (srcRecord == null || destRecord == null) break;
        databaseManager.copyMatchingFields(srcRecord,destRecord,true)
}
//saves any outstanding changes to the dest foundset
databaseManager.saveData();

//copying from a MailMessage JavaScript object
//var _msg = plugins.mail.receiveMail(login, password, true, 0, null, properties);
//if (_msg != null)
//{
//        controller.newRecord();
//        var srcObject = _msg[0];
//        var destRecord = foundset.getSelectedRecord();
//        databaseManager.copyMatchingFields(srcObject, destRecord, true);
//        databaseManager.saveData();
//}
```

copyMatchingFields

Boolean **copyMatchingFields** (source, destination, overwrite)

Copies all matching non empty columns (if overwrite boolean is given all columns except pk/ident, if array then all columns except pk and array names).
The matching requires the properties and getter functions of the source to match those of the destination; for the getter functions,
the 'get' will be removed and the remaining name will be converted to lowercase before attempting to match.
Returns true if no error occurred.

NOTE: This function could be used to store a copy of records in an archive table. Use the getRecord() function to get the record as an object.

Parameters

{Object} source - The source record or (java/javascript)object to be copied.
{JSRecord} destination - The destination record to copy to.
{Boolean} overwrite - Boolean values to overwrite all values.

Returns

Boolean - true if no errors happened.

Sample

```
for( var i = 1 ; i <= foundset.getSize() ; i++ )
{
        var srcRecord = foundset.getRecord(i);
        var destRecord = otherfoundset.getRecord(i);
        if (srcRecord == null || destRecord == null) break;
        databaseManager.copyMatchingFields(srcRecord,destRecord,true)
}
//saves any outstanding changes to the dest foundset
databaseManager.saveData();

//copying from a MailMessage JavaScript object
//var _msg = plugins.mail.receiveMail(login, password, true, 0, null, properties);
//if (_msg != null)
//{
//        controller.newRecord();
//        var srcObject = _msg[0];
//        var destRecord = foundset.getSelectedRecord();
//        databaseManager.copyMatchingFields(srcObject, destRecord, true);
//        databaseManager.saveData();
//}
```

copyMatchingFields

Boolean **copyMatchingFields** (source, destination, names)

Copies all matching non empty columns (if overwrite boolean is given all columns except pk/ident, if array then all columns except pk and array names).
The matching requires the properties and getter functions of the source to match those of the destination; for the getter functions,
the 'get' will be removed and the remaining name will be converted to lowercase before attempting to match.
Returns true if no error occurred.

NOTE: This function could be used to store a copy of records in an archive table. Use the getRecord() function to get the record as an object.

Parameters

{Object} source - The source record or (java/javascript)object to be copied.
{JSRecord} destination - The destination record to copy to.
{String[]} names - The property names that shouldn't be overriden.

Returns

Boolean - true if no errors happened.

Sample

```
for( var i = 1 ; i <= foundset.getSize() ; i++ )
{
        var srcRecord = foundset.getRecord(i);
        var destRecord = otherfoundset.getRecord(i);
        if (srcRecord == null || destRecord == null) break;
        databaseManager.copyMatchingFields(srcRecord,destRecord,true)
}
//saves any outstanding changes to the dest foundset
databaseManager.saveData();

//copying from a MailMessage JavaScript object
//var _msg = plugins.mail.receiveMail(login, password, true, 0, null, properties);
//if (_msg != null)
//{
//        controller.newRecord();
//        var srcObject = _msg[0];
//        var destRecord = foundset.getSelectedRecord();
//        databaseManager.copyMatchingFields(srcObject, destRecord, true);
//        databaseManager.saveData();
//}
```

createDataSourceByQuery

String **createDataSourceByQuery** (name, query, max_returned_rows)

Performs a query and saves the result in a datasource.
Will throw an exception if anything went wrong when executing the query.
Column types in the datasource are inferred from the query result or can be explicitly specified.

Using this variation of createDataSourceByQuery any Tablefilter on the involved tables will be taken into account.

Parameters

{String} name - data source name
{QBSelect} query - The query builder to be executed.
{Number} max_returned_rows - The maximum number of rows returned by the query.

Returns

String - datasource containing the results of the query or null if the parameters are wrong.

Sample

```
// select customer data for order 1234
/** @type {QBSelect<db:/example_data/customers>} */
var q = databaseManager.createSelect("db:/example_data/customers");
q.result.add(q.columns.address).add(q.columns.city).add(q.columns.country);
q.where.add(q.joins.customers_to_orders.columns.orderid.eq(1234));
var uri = databaseManager.createDataSourceByQuery('mydata', q, 999);
//var uri = databaseManager.createDataSourceByQuery('mydata', q, 999, [JSColumn.TEXT, JSColumn.TEXT,
JSColumn.TEXT]);

// the uri can be used to create a form using solution model
var myForm = solutionModel.newForm('newForm', uri, 'myStyleName', false, 800, 600);
myForm.newTextField('city', 140, 20, 140,20);

// the uri can be used to acces a foundset directly
var fs = databaseManager.getFoundSet(uri);
fs.loadAllRecords();
```

createDataSourceByQuery

String **createDataSourceByQuery** (name, query, max_returned_rows, types)

Performs a query and saves the result in a datasource.
Will throw an exception if anything went wrong when executing the query.
Column types in the datasource are inferred from the query result or can be explicitly specified.

Using this variation of createDataSourceByQuery any Tablefilter on the involved tables will be taken into account.

Parameters

{String} name - Data source name
{QBSelect} query - The query builder to be executed.
{Number} max_returned_rows - The maximum number of rows returned by the query.
{Number[]} types - The column types

Returns

String - datasource containing the results of the query or null if the parameters are wrong.

Sample

```
// select customer data for order 1234
/** @type {QBSelect<db:/example_data/customers>} */
var q = databaseManager.createSelect("db:/example_data/customers");
q.result.add(q.columns.address).add(q.columns.city).add(q.columns.country);
q.where.add(q.joins.customers_to_orders.columns.orderid.eq(1234));
var uri = databaseManager.createDataSourceByQuery('mydata', q, 999);
//var uri = databaseManager.createDataSourceByQuery('mydata', q, 999, [JSColumn.TEXT, JSColumn.TEXT,
JSColumn.TEXT]);

// the uri can be used to create a form using solution model
var myForm = solutionModel.newForm('newForm', uri, 'myStyleName', false, 800, 600);
myForm.newTextField('city', 140, 20, 140,20);

// the uri can be used to acces a foundset directly
var fs = databaseManager.getFoundSet(uri);
fs.loadAllRecords();
```

createDataSourceByQuery

String **createDataSourceByQuery** (name, query, max_returned_rows, types, pkNames)

Performs a query and saves the result in a datasource.
Will throw an exception if anything went wrong when executing the query.
Column types in the datasource are inferred from the query result or can be explicitly specified.

Using this variation of createDataSourceByQuery any Tablefilter on the involved tables will be taken into account.

Parameters

{String} name - Data source name
{QBSelect} query - The query builder to be executed.
{Number} max_returned_rows - The maximum number of rows returned by the query.
{Number[]} types - The column types
{String[]} pkNames - array of pk names, when null a hidden pk-column will be added

Returns

String - datasource containing the results of the query or null if the parameters are wrong.

Sample

```
// select customer data for order 1234
/** @type {QBSelect<db:/example_data/customers>} */
var q = databaseManager.createSelect("db:/example_data/customers");
q.result.add(q.columns.customer_id).add(q.columns.city).add(q.columns.country);
q.where.add(q.joins.customers_to_orders.columns.orderid.eq(1234));
var uri = databaseManager.createDataSourceByQuery('mydata', q, 999, null, ['customer_id']);
//var uri = databaseManager.createDataSourceByQuery('mydata', q, 999, [JSColumn.TEXT, JSColumn.TEXT,
JSColumn.TEXT], ['customer_id']);

// the uri can be used to create a form using solution model
var myForm = solutionModel.newForm('newForm', uri, 'myStyleName', false, 800, 600);
myForm.newTextField('city', 140, 20, 140,20);

// the uri can be used to acces a foundset directly
var fs = databaseManager.getFoundSet(uri);
fs.loadAllRecords();
```

createDataSourceByQuery

String **createDataSourceByQuery** (name, server_name, sql_query, arguments, max_returned_rows)

Performs a sql query on the specified server, saves the the result in a datasource.
Will throw an exception if anything went wrong when executing the query.
Column types in the datasource are inferred from the query result or can be explicitly specified.

Using this variation of createDataSourceByQuery any Tablefilter on the involved tables will be disregarded.

Parameters

{String} name - data source name
{String} server_name - The name of the server where the query should be executed.
{String} sql_query - The custom sql.
{Object[]} arguments - Specified arguments or null if there are no arguments.
{Number} max_returned_rows - The maximum number of rows returned by the query.

Returns

String - datasource containing the results of the query or null if the parameters are wrong.

Sample

```
var query = 'select address, city, country  from customers';
var uri = databaseManager.createDataSourceByQuery('mydata', 'example_data', query, null, 999);
//var uri = databaseManager.createDataSourceByQuery('mydata', 'example_data', query, null, 999, [JSColumn.
TEXT, JSColumn.TEXT, JSColumn.TEXT]);

// the uri can be used to create a form using solution model
var myForm = solutionModel.newForm('newForm', uri, 'myStyleName', false, 800, 600)
myForm.newTextField('city', 140, 20, 140,20)

// the uri can be used to acces a foundset directly
var fs = databaseManager.getFoundSet(uri)
fs.loadAllRecords();
```

createDataSourceByQuery

String **createDataSourceByQuery** (name, server_name, sql_query, arguments, max_returned_rows, types)

Performs a sql query on the specified server, saves the the result in a datasource.
Will throw an exception if anything went wrong when executing the query.
Column types in the datasource are inferred from the query result or can be explicitly specified.

Using this variation of createDataSourceByQuery any Tablefilter on the involved tables will be disregarded.

Parameters

{String} name - data source name
{String} server_name - The name of the server where the query should be executed.
{String} sql_query - The custom sql.
{Object[]} arguments - Specified arguments or null if there are no arguments.
{Number} max_returned_rows - The maximum number of rows returned by the query.
{Number[]} types - The column types

Returns

String - datasource containing the results of the query or null if the parameters are wrong.

Sample

```
var query = 'select address, city, country  from customers';
var uri = databaseManager.createDataSourceByQuery('mydata', 'example_data', query, null, 999);
//var uri = databaseManager.createDataSourceByQuery('mydata', 'example_data', query, null, 999, [JSColumn.
TEXT, JSColumn.TEXT, JSColumn.TEXT]);

// the uri can be used to create a form using solution model
var myForm = solutionModel.newForm('newForm', uri, 'myStyleName', false, 800, 600)
myForm.newTextField('city', 140, 20, 140,20)

// the uri can be used to acces a foundset directly
var fs = databaseManager.getFoundSet(uri)
fs.loadAllRecords();
```

createDataSourceByQuery

String **createDataSourceByQuery** (name, server_name, sql_query, arguments, max_returned_rows, types, pkNames)

Performs a sql query on the specified server, saves the the result in a datasource.
Will throw an exception if anything went wrong when executing the query.
Column types in the datasource are inferred from the query result or can be explicitly specified.

Using this variation of createDataSourceByQuery any Tablefilter on the involved tables will be disregarded.

Parameters

{String} name - data source name
{String} server_name - The name of the server where the query should be executed.
{String} sql_query - The custom sql.
{Object[]} arguments - Specified arguments or null if there are no arguments.
{Number} max_returned_rows - The maximum number of rows returned by the query.
{Number[]} types - The column types
{String[]} pkNames - array of pk names, when null a hidden pk-column will be added

Returns

String - datasource containing the results of the query or null if the parameters are wrong.

Sample

```
var query = 'select customer_id, address, city, country  from customers';
var uri = databaseManager.createDataSourceByQuery('mydata', 'example_data', query, null, 999);
//var uri = databaseManager.createDataSourceByQuery('mydata', 'example_data', query, null, 999, [JSColumn.
TEXT, JSColumn.TEXT, JSColumn.TEXT], ['customer_id']);

// the uri can be used to create a form using solution model
var myForm = solutionModel.newForm('newForm', uri, 'myStyleName', false, 800, 600)
myForm.newTextField('city', 140, 20, 140,20)

// the uri can be used to acces a foundset directly
var fs = databaseManager.getFoundSet(uri)
fs.loadAllRecords();
```

createEmptyDataSet

JSDataSet **createEmptyDataSet** ()

Returns an empty dataset object.

Returns

JSDataSet - An empty JSDataSet with the initial sizes.

Sample

```
// gets an empty dataset with a specifed row and column count
var dataset = databaseManager.createEmptyDataSet(10,10)
// gets an empty dataset with a specifed row count and column array
var dataset2 = databaseManager.createEmptyDataSet(10,new Array ('a','b','c','d'))
```

createEmptyDataSet

JSDataSet **createEmptyDataSet** (rowCount, columnCount)

Returns an empty dataset object.

Parameters

{Number} rowCount - The number of rows in the DataSet object.
{Number} columnCount - Number of columns.

Returns

JSDataSet - An empty JSDataSet with the initial sizes.

Sample

```
// gets an empty dataset with a specifed row and column count
var dataset = databaseManager.createEmptyDataSet(10,10)
// gets an empty dataset with a specifed row count and column array
var dataset2 = databaseManager.createEmptyDataSet(10,new Array ('a','b','c','d'))
```

createEmptyDataSet

JSDataSet **createEmptyDataSet** (rowCount, columnNames)

Returns an empty dataset object.

Parameters

{Number} rowCount
{String[]} columnNames

Returns

JSDataSet - An empty JSDataSet with the initial sizes.

Sample

```
// gets an empty dataset with a specifed row and column count
var dataset = databaseManager.createEmptyDataSet(10,10)
// gets an empty dataset with a specifed row count and column array
var dataset2 = databaseManager.createEmptyDataSet(10,new Array ('a','b','c','d'))
```

createSelect

QBSelect **createSelect** (dataSource)

Create a QueryBuilder object for a datasource.

Parameters

{String} dataSource - The data source to build a query for.

Returns

QBSelect - query builder

Sample

```
/** @type {QBSelect<db:/example_data/book_nodes>} */
var q = databaseManager.createSelect('db:/example_data/book_nodes')
q.result.addPk()
q.where.add(q.columns.label_text.not.isin(null))
databaseManager.getFoundSet('db:/example_data/book_nodes').loadRecords(q)
```

dataSourceExists

Boolean **dataSourceExists** (datasource)

Check wether a data source exists. This function can be used for any type of data source (db-based, in-memory).

Parameters

datasource

Returns

Boolean - boolean exists

Sample

```
if (!databaseManager.dataSourceExists(dataSource))
{
   // does not exist
}
```

getAutoSave

Boolean **getAutoSave** ()

Returns true or false if autosave is enabled or disabled.

Returns

Boolean - true if autosave if enabled.

Sample

```
//Set autosave, if false then no saves will happen by the ui (not including deletes!). Until you call
saveData or setAutoSave(true)
//Rollbacks in mem the records that were edited and not yet saved. Best used in combination with autosave
false.
databaseManager.setAutoSave(false)
//Now let users input data

//On save or cancel, when data has been entered:
if (cancel) databaseManager.rollbackEditedRecords()
databaseManager.setAutoSave(true)
```

getDataModelClonesFrom

String[] **getDataModelClonesFrom** (serverName)

Retrieves a list with names of all database servers that have property DataModelCloneFrom equal to the server name parameter.

Parameters

{String} serverName

Returns

String[]

Sample

```
var serverNames = databaseManager.getDataModelClonesFrom('myServerName');
```

getDataSetByQuery

JSDataSet **getDataSetByQuery** (query, max_returned_rows)

Performs a sql query with a query builder object.
Will throw an exception if anything did go wrong when executing the query.

Using this variation of getDataSetByQuery any Tablefilter on the involved tables will be taken into account.

Parameters

{QBSelect} query - QBSelect query.
{Number} max_returned_rows - The maximum number of rows returned by the query.

Returns

JSDataSet - The JSDataSet containing the results of the query.

Sample

```
// use the query froma foundset and add a condition
/** @type {QBSelect<db:/example_data/orders>} */
var q = foundset.getQuery()
q.where.add(q.joins.orders_to_order_details.columns.discount.eq(2))
var maxReturnedRows = 10;//useful to limit number of rows
var ds = databaseManager.getDataSetByQuery(q, maxReturnedRows);

// query: select PK from example.book_nodes where parent = 111 and(note_date is null or note_date > now)
/** @type {QBSelect<db:/example_data/book_nodes>} */
var query = databaseManager.createSelect('db:/example_data/book_nodes').result.addPk().root
query.where.add(query.columns.parent_id.eq(111))
        .add(query.or
        .add(query.columns.note_date.isNull)
        .add(query.columns.note_date.gt(new Date())))
databaseManager.getDataSetByQuery(q, max_returned_rows)
```

getDataSetByQuery

JSDataSet **getDataSetByQuery** (server_name, sql_query, arguments, max_returned_rows)

Performs a sql query on the specified server, returns the result in a dataset.
Will throw an exception if anything did go wrong when executing the query.

Using this variation of getDataSetByQuery any Tablefilter on the involved tables will be disregarded.

Parameters

{String} server_name - The name of the server where the query should be executed.
{String} sql_query - The custom sql.
{Object[]} arguments - Specified arguments or null if there are no arguments.
{Number} max_returned_rows - The maximum number of rows returned by the query.

Returns

JSDataSet - The JSDataSet containing the results of the query.

Sample

```
//finds duplicate records in a specified foundset
var vQuery =" SELECT companiesid from companies where company_name IN (SELECT company_name from companies
group bycompany_name having count(company_name)>1 )";
var vDataset = databaseManager.getDataSetByQuery(databaseManager.getDataSourceServerName(controller.
getDataSource()), vQuery, null, 1000);
controller.loadRecords(vDataset);

var maxReturnedRows = 10;//useful to limit number of rows
var query = 'select c1,c2,c3 from test_table where start_date = ?';//do not use '.' or special chars in
names or aliases if you want to access data by name
var args = new Array();
args[0] = order_date //or  new Date()
var dataset = databaseManager.getDataSetByQuery(databaseManager.getDataSourceServerName(controller.
getDataSource()), query, args, maxReturnedRows);

// place in label:
// elements.myLabel.text = '<html>'+dataset.getAsHTML()+'</html>';

//example to calc a strange total
global_total = 0;
for( var i = 1 ; i <= dataset.getMaxRowIndex() ; i++ )
{
        dataset.rowIndex = i;
        global_total = global_total + dataset.c1 + dataset.getValue(i,3);
}
//example to assign to dataprovider
//employee_salary = dataset.getValue(row,column)
```

getDataSource

String **getDataSource** (serverName, tableName)

Returns the datasource corresponding to the given server/table.

Parameters

{String} serverName - The name of the table's server.
{String} tableName - The table's name.

Returns

String - The datasource of the given table/server.

Sample

```
var datasource = databaseManager.getDataSource('example_data', 'categories');
```

getDataSourceServerName

String **getDataSourceServerName** (dataSource)

Returns the server name from the datasource, or null if not a database datasource.

Parameters

{String} dataSource - The datasource string to get the server name from.

Returns

String - The servername of the datasource.

Sample

```
var servername = databaseManager.getDataSourceServerName(datasource);
```

getDataSourceTableName

String **getDataSourceTableName** (dataSource)

Returns the table name from the datasource, or null if not a database datasource.

Parameters

{String} dataSource - The datasource string to get the tablename from.

Returns

String - The tablename of the datasource.

Sample

```
var tablename = databaseManager.getDataSourceTableName(datasource);
```

getDatabaseProductName

String **getDatabaseProductName** (serverName)

Returns the database product name as supplied by the driver for a server.

NOTE: For more detail on named server connections, see the chapter on Database Connections, beginning with the Introduction to database connections in the Servoy Developer User's Guide.

Parameters

{String} serverName - The specified name of the database server connection.

Returns

String - A database product name.

Sample

```
var databaseProductName = databaseManager.getDatabaseProductName(servername)
```

getEditedRecords

JSRecord[] **getEditedRecords** ()

Returns an array of edited records with outstanding (unsaved) data.

NOTE: To return a dataset of outstanding (unsaved) edited data for each record, see JSRecord.getChangedData();
NOTE2: The fields focus may be lost in user interface in order to determine the edits.

Returns

JSRecord[] - Array of outstanding/unsaved JSRecords.

Sample

```
//This method can be used to loop through all outstanding changes,
//the application.output line contains all the changed data, their tablename and primary key
var editr = databaseManager.getEditedRecords()
for (x=0;x<editr.length;x++)
{
	var ds = editr[x].getChangedData();
	var jstable = databaseManager.getTable(editr[x]);
	var tableSQLName = jstable.getSQLName();
	var pkrec = jstable.getRowIdentifierColumnNames().join(',');
	var pkvals = new Array();
	for (var j = 0; j < jstable.getRowIdentifierColumnNames().length; j++)
	{
		pkvals[j] = editr[x][jstable.getRowIdentifierColumnNames()[j]];
	}
	application.output('Table: '+tableSQLName +', PKs: '+ pkvals.join(',') +' ('+pkrec +')');
	// Get a dataset with outstanding changes on a record
	for( var i = 1 ; i <= ds.getMaxRowIndex() ; i++ )
	{
		application.output('Column: '+ ds.getValue(i,1) +', oldValue: '+ ds.getValue(i,2) +',
newValue: '+ ds.getValue(i,3));
	}
}
//in most cases you will want to set autoSave back on now
databaseManager.setAutoSave(true);
```

getEditedRecords

JSRecord[] **getEditedRecords** (foundset)

Returns an array of edited records with outstanding (unsaved) data.

NOTE: To return a dataset of outstanding (unsaved) edited data for each record, see JSRecord.getChangedData();
NOTE2: The fields focus may be lost in user interface in order to determine the edits.

Parameters

{JSFoundSet} foundset - return edited records in the foundset only.

Returns

JSRecord[] - Array of outstanding/unsaved JSRecords.

Sample

```
//This method can be used to loop through all outstanding changes in a foundset,
//the application.output line contains all the changed data, their tablename and primary key
var editr = databaseManager.getEditedRecords(foundset)
for (x=0;x<editr.length;x++)
{
	var ds = editr[x].getChangedData();
	var jstable = databaseManager.getTable(editr[x]);
	var tableSQLName = jstable.getSQLName();
	var pkrec = jstable.getRowIdentifierColumnNames().join(',');
	var pkvals = new Array();
	for (var j = 0; j < jstable.getRowIdentifierColumnNames().length; j++)
	{
		pkvals[j] = editr[x][jstable.getRowIdentifierColumnNames()[j]];
	}
	application.output('Table: '+tableSQLName +', PKs: '+ pkvals.join(',') +' ('+pkrec +')');
	// Get a dataset with outstanding changes on a record
	for( var i = 1 ; i <= ds.getMaxRowIndex() ; i++ )
	{
		application.output('Column: '+ ds.getValue(i,1) +', oldValue: '+ ds.getValue(i,2) +',
newValue: '+ ds.getValue(i,3));
	}
}
databaseManager.saveData(foundset);//save all records from foundset
```

getFailedRecords

JSRecord[] **getFailedRecords** ()

Returns an array of records that fail after a save.

Returns

JSRecord[] - Array of failed JSRecords

Sample

```
var array = databaseManager.getFailedRecords()
for( var i = 0 ; i < array.length ; i++ )
{
	var record = array[i];
	application.output(record.exception);
	if (record.exception.getErrorCode() == ServoyException.RECORD_VALIDATION_FAILED)
	{
		// exception thrown in pre-insert/update/delete event method
		var thrown = record.exception.getValue()
		application.output("Record validation failed: "+thrown)
	}
	// find out the table of the record (similar to getEditedRecords)
	var jstable = databaseManager.getTable(record);
	var tableSQLName = jstable.getSQLName();
	application.output('Table:'+tableSQLName+' in server:'+jstable.getServerName()+' failed to save.')
}
```

getFailedRecords

JSRecord[] **getFailedRecords** (foundset)

Returns an array of records that fail after a save.

Parameters

{JSFoundSet} foundset - return failed records in the foundset only.

Returns

JSRecord[] - Array of failed JSRecords

Sample

```
var array = databaseManager.getFailedRecords(foundset)
for( var i = 0 ; i < array.length ; i++ )
{
	var record = array[i];
	application.output(record.exception);
	if (record.exception.getErrorCode() == ServoyException.RECORD_VALIDATION_FAILED)
	{
		// exception thrown in pre-insert/update/delete event method
		var thrown = record.exception.getValue()
		application.output("Record validation failed: "+thrown)
	}
	// find out the table of the record (similar to getEditedRecords)
	var jstable = databaseManager.getTable(record);
	var tableSQLName = jstable.getSQLName();
	application.output('Table:'+tableSQLName+' in server:'+jstable.getServerName()+' failed to save.')
}
```

getFoundSet

JSFoundSet **getFoundSet** (query)

Returns a foundset object for a specified pk query.

Parameters

{QBSelect} query - The query to get the JSFoundset for.

Returns

JSFoundSet - A new JSFoundset for that query.

Sample

```
// type the foundset returned from the call with JSDoc, fill in the right server/tablename
/** @type {JSFoundset<db:/servername/tablename>} */
var fs = databaseManager.getFoundSet(controller.getDataSource())
var ridx = fs.newRecord()
var record = fs.getRecord(ridx)
record.emp_name = 'John'
databaseManager.saveData()
```

getFoundSet

JSFoundSet **getFoundSet** (dataSource)

Returns a foundset object for a specified datasource or server and tablename.

Parameters

{String} dataSource - The datasource to get a JSFoundset for.

Returns

JSFoundSet - A new JSFoundset for that datasource.

Sample

```
// type the foundset returned from the call with JSDoc, fill in the right server/tablename
/** @type {JSFoundset<db:/servername/tablename>} */
var fs = databaseManager.getFoundSet(controller.getDataSource())
var ridx = fs.newRecord()
var record = fs.getRecord(ridx)
record.emp_name = 'John'
databaseManager.saveData()
```

getFoundSet

JSFoundSet **getFoundSet** (serverName, tableName)

Returns a foundset object for a specified datasource or server and tablename.

Parameters

{String} serverName - The servername to get a JSFoundset for.
{String} tableName - The tablename for that server

Returns

JSFoundSet - A new JSFoundset for that datasource.

Sample

```
// type the foundset returned from the call with JSDoc, fill in the right server/tablename
/** @type {JSFoundset<db:/servername/tablename>} */
var fs = databaseManager.getFoundSet(controller.getDataSource())
var ridx = fs.newRecord()
var record = fs.getRecord(ridx)
record.emp_name = 'John'
databaseManager.saveData()
```

getFoundSetCount

Number **getFoundSetCount** (foundset)

Returns the total number of records in a foundset.

NOTE: This can be an expensive operation (time-wise) if your resultset is large.

Parameters

{Object} foundset - The JSFoundset to get the count for.

Returns

Number - the foundset count

Sample

```
//return the total number of records in a foundset.
databaseManager.getFoundSetCount(foundset);
```

getFoundSetUpdater

JSFoundSetUpdater **getFoundSetUpdater** (foundset)

Returns a JSFoundsetUpdater object that can be used to update all or a specific number of rows in the specified foundset.

Parameters

{Object} foundset - The foundset to update.

Returns

JSFoundSetUpdater - The JSFoundsetUpdater for the specified JSFoundset.

Sample

```
//1) update entire foundset
var fsUpdater = databaseManager.getFoundSetUpdater(foundset)
fsUpdater.setColumn('customer_type',1)
fsUpdater.setColumn('my_flag',0)
fsUpdater.performUpdate()

//2) update part of foundset, for example the first 4 row (starts with selected row)
var fsUpdater = databaseManager.getFoundSetUpdater(foundset)
fsUpdater.setColumn('customer_type',new Array(1,2,3,4))
fsUpdater.setColumn('my_flag',new Array(1,0,1,0))
fsUpdater.performUpdate()

//3) safely loop through foundset (starts with selected row)
controller.setSelectedIndex(1)
var count = 0
var fsUpdater = databaseManager.getFoundSetUpdater(foundset)
while(fsUpdater.next())
{
        fsUpdater.setColumn('my_flag',count++)
}
```

getNextSequence

Object **getNextSequence** (dataSource, columnName)

Gets the next sequence for a column which has a sequence defined in its column dataprovider properties.

NOTE: For more infomation on configuring the sequence for a column, see the section Auto enter options for a column from the Dataproviders chapter in the Servoy Developer User's Guide.

Parameters

{String} dataSource - The datasource that points to the table which has the column with the sequence,
or the name of the server where the table can be found. If the name of the server
is specified, then a second optional parameter specifying the name of the table
must be used. If the datasource is specified, then the name of the table is not needed
as the second argument.
{String} columnName - The name of the column that has a sequence defined in its properties.

Returns

Object - The next sequence for the column, null if there was no sequence for that column or if there is no column with the given name.

Sample

```
var seqDataSource = forms.seq_table.controller.getDataSource();
var nextValue = databaseManager.getNextSequence(seqDataSource, 'seq_table_value');
application.output(nextValue);

nextValue = databaseManager.getNextSequence(databaseManager.getDataSourceServerName(seqDataSource),
databaseManager.getDataSourceTableName(seqDataSource), 'seq_table_value')
application.output(nextValue);
```

getSQL

String **getSQL** (foundset)

Returns the internal SQL which defines the specified (related)foundset.
Table filters are on by default.
Make sure to set the applicable filters when the sql is used in a loadRecords() call.

Parameters

{Object} foundset - The JSFoundset to get the sql for.

Returns

String - String representing the sql of the JSFoundset.

Sample

```
var sql = databaseManager.getSQL(foundset)
```

getSQL

String **getSQL** (foundset, includeFilters)

Returns the internal SQL which defines the specified (related)foundset.
Optionally, the foundset and table filter params can be excluded in the sql (includeFilters=false).
Make sure to set the applicable filters when the sql is used in a loadRecords() call.
When the founset is in find mode, the find conditions are included in the resulting query.

Parameters

{Object} foundset - The JSFoundset to get the sql for.
{Boolean} includeFilters - include the foundset and table filters.

Returns

String - String representing the sql of the JSFoundset.

Sample

```
var sql = databaseManager.getSQL(foundset)
```

getSQLParameters

Object[] **getSQLParameters** (foundset)

Returns the internal SQL parameters, as an array, that are used to define the specified (related)foundset.
Parameters for the filters are included.

Parameters

{Object} foundset - The JSFoundset to get the sql parameters for.

Returns

Object[] - An Array with the sql parameter values.

Sample

```
var sqlParameterArray = databaseManager.getSQLParameters(foundset,false)
```

getSQLParameters

Object[] **getSQLParameters** (foundset, includeFilters)

Returns the internal SQL parameters, as an array, that are used to define the specified (related)foundset.
When the founset is in find mode, the arguments for the find conditions are included in the result.

Parameters

{Object} foundset - The JSFoundset to get the sql parameters for.
{Boolean} includeFilters - include the parameters for the filters.

Returns

Object[] - An Array with the sql parameter values.

Sample

```
var sqlParameterArray = databaseManager.getSQLParameters(foundset,false)
```

getServerNames

String[] **getServerNames** ()

Returns an array with all the server names used in the solution.

NOTE: For more detail on named server connections, see the chapter on Database Connections, beginning with the Introduction to database connections in the Servoy Developer User's Guide.

Returns

String[] - An Array of servernames.

Sample

```
var array = databaseManager.getServerNames()
```

getTable

JSTable **getTable** (foundset)

Returns the JSTable object from which more info can be obtained (like columns).
The parameter can be a JSFoundset,JSRecord,datasource string or server/tablename combination.

Parameters

{JSFoundSet} foundset - The foundset where the JSTable can be get from.

Returns

JSTable - the JSTable get from the input.

Sample

```
var jstable = databaseManager.getTable(controller.getDataSource());
//var jstable = databaseManager.getTable(foundset);
//var jstable = databaseManager.getTable(record);
//var jstable = databaseManager.getTable(datasource);
var tableSQLName = jstable.getSQLName();
var columnNamesArray = jstable.getColumnNames();
var firstColumnName = columnNamesArray[0];
var jscolumn = jstable.getColumn(firstColumnName);
var columnLength = jscolumn.getLength();
var columnType = jscolumn.getTypeAsString();
var columnSQLName = jscolumn.getSQLName();
var isPrimaryKey = jscolumn.isRowIdentifier();
```

getTable

JSTable **getTable** (record)

Returns the JSTable object from which more info can be obtained (like columns).
The parameter can be a JSFoundset,JSRecord,datasource string or server/tablename combination.

Parameters

{JSRecord} record - The record where the table can be get from.

Returns

JSTable - the JSTable get from the input.

Sample

```
var jstable = databaseManager.getTable(controller.getDataSource());
//var jstable = databaseManager.getTable(foundset);
//var jstable = databaseManager.getTable(record);
//var jstable = databaseManager.getTable(datasource);
var tableSQLName = jstable.getSQLName();
var columnNamesArray = jstable.getColumnNames();
var firstColumnName = columnNamesArray[0];
var jscolumn = jstable.getColumn(firstColumnName);
var columnLength = jscolumn.getLength();
var columnType = jscolumn.getTypeAsString();
var columnSQLName = jscolumn.getSQLName();
var isPrimaryKey = jscolumn.isRowIdentifier();
```

getTable

JSTable **getTable** (dataSource)

Returns the JSTable object from which more info can be obtained (like columns).
The parameter can be a JSFoundset,JSRecord,datasource string or server/tablename combination.

Parameters

{String} dataSource - The datasource where the table can be get from.

Returns

JSTable - the JSTable get from the input.

Sample

```
var jstable = databaseManager.getTable(controller.getDataSource());
//var jstable = databaseManager.getTable(foundset);
//var jstable = databaseManager.getTable(record);
//var jstable = databaseManager.getTable(datasource);
var tableSQLName = jstable.getSQLName();
var columnNamesArray = jstable.getColumnNames();
var firstColumnName = columnNamesArray[0];
var jscolumn = jstable.getColumn(firstColumnName);
var columnLength = jscolumn.getLength();
var columnType = jscolumn.getTypeAsString();
var columnSQLName = jscolumn.getSQLName();
var isPrimaryKey = jscolumn.isRowIdentifier();
```

getTable

JSTable **getTable** (serverName, tableName)

Returns the JSTable object from which more info can be obtained (like columns).
The parameter can be a JSFoundset,JSRecord,datasource string or server/tablename combination.

Parameters

{String} serverName - Server name.
{String} tableName - Table name.

Returns

JSTable - the JSTable get from the input.

Sample

```
var jstable = databaseManager.getTable(controller.getDataSource());
//var jstable = databaseManager.getTable(foundset);
//var jstable = databaseManager.getTable(record);
//var jstable = databaseManager.getTable(datasource);
var tableSQLName = jstable.getSQLName();
var columnNamesArray = jstable.getColumnNames();
var firstColumnName = columnNamesArray[0];
var jscolumn = jstable.getColumn(firstColumnName);
var columnLength = jscolumn.getLength();
var columnType = jscolumn.getTypeAsString();
var columnSQLName = jscolumn.getSQLName();
var isPrimaryKey = jscolumn.isRowIdentifier();
```

getTableCount

Number **getTableCount** (dataSource)

Returns the total number of records(rows) in a table.

NOTE: This can be an expensive operation (time-wise) if your resultset is large

Parameters

{Object} dataSource - Data where a server table can be get from. Can be a foundset, a datasource name or a JSTable.

Returns

Number - the total table count.

Sample

```
//return the total number of rows in a table.
var count = databaseManager.getTableCount(foundset);
```

getTableFilterParams

Object[][] **getTableFilterParams** (serverName)

Returns a two dimensional array object containing the table filter information currently applied to the servers tables.
The "columns" of a row from this array are: tablename,dataprovider,operator,value,tablefilername

Parameters

{String} serverName - The name of the database server connection.

Returns

Object[][] - Two dimensional array.

Sample

```
var params = databaseManager.getTableFilterParams(databaseManager.getDataSourceServerName(controller.
getDataSource()))
for (var i = 0; params != null && i < params.length; i++)
{
        application.output('Table filter on table ' + params[i][0]+ ': '+ params[i][1]+ ' '+params[i][2]+ '
'+params[i][3] +(params[i][4] == null ? ' [no name]' : ' ['+params[i][4]+']'))
}
```

getTableFilterParams

Object[][] **getTableFilterParams** (serverName, filterName)

Returns a two dimensional array object containing the table filter information currently applied to the servers tables.
The "columns" of a row from this array are: tablename,dataprovider,operator,value,tablefilername

Parameters

{String} serverName - The name of the database server connection.
{String} filterName - The filter name for which to get the array.

Returns

Object[][] - Two dimensional array.

Sample

```
var params = databaseManager.getTableFilterParams(databaseManager.getDataSourceServerName(controller.
getDataSource()))
for (var i = 0; params != null && i < params.length; i++)
{
        application.output('Table filter on table ' + params[i][0]+ ': '+ params[i][1]+ ' '+params[i][2]+ '
'+params[i][3] +(params[i][4] == null ? ' [no name]' : ' ['+params[i][4]+']'))
}
```

getTableNames

String[] **getTableNames** (serverName)

Returns an array of all table names for a specified server.

Parameters

{String} serverName - The server name to get the table names from.

Returns

String[] - An Array with the tables names of that server.

Sample

```
//return all the table names as array
var tableNamesArray = databaseManager.getTableNames('user_data');
var firstTableName = tableNamesArray[0];
```

getViewNames

String[] **getViewNames** (serverName)

Returns an array of all view names for a specified server.

Parameters

{String} serverName - The server name to get the view names from.

Returns

String[] - An Array with the view names of that server.

Sample

```
//return all the view names as array
var viewNamesArray = databaseManager.getViewNames('user_data');
var firstViewName = viewNamesArray[0];
```

hasLocks

Boolean **hasLocks** ()

Returns true if the current client has any or the specified lock(s) acquired.

Returns

Boolean - true if the current client has locks or the lock.

Sample

```
var hasLocks = databaseManager.hasLocks('mylock')
```

hasLocks

Boolean **hasLocks** (lockName)

Returns true if the current client has any or the specified lock(s) acquired.

Parameters

{String} lockName - The lock name to check.

Returns

Boolean - true if the current client has locks or the lock.

Sample

```
var hasLocks = databaseManager.hasLocks('mylock')
```

hasNewRecords

Boolean **hasNewRecords** (foundset)

Returns true if the argument (foundSet / record) has at least one row that was not yet saved in the database.

Parameters

{JSFoundSet} foundset - The JSFoundset to test.

Returns

Boolean - true if the JSFoundset has new records or JSRecord is a new record.

Sample

```
var fs = databaseManager.getFoundSet(databaseManager.getDataSourceServerName(controller.getDataSource()),
'employees');
databaseManager.startTransaction();
var ridx = fs.newRecord();
var record = fs.getRecord(ridx);
record.emp_name = 'John';
if (databaseManager.hasNewRecords(fs)) {
        application.output("new records");
} else {
        application.output("no new records");
}
databaseManager.saveData();
databaseManager.commitTransaction();
```

hasNewRecords

Boolean **hasNewRecords** (foundset, index)

Returns true if the argument (foundSet / record) has at least one row that was not yet saved in the database.

Parameters

{JSFoundSet} foundset - The JSFoundset to test.
{Number} index - The record index in the foundset to test (not specified means has the foundset any new records)

Returns

Boolean - true if the JSFoundset has new records or JSRecord is a new record.

Sample

```
var fs = databaseManager.getFoundSet(databaseManager.getDataSourceServerName(controller.getDataSource()),
'employees');
databaseManager.startTransaction();
var ridx = fs.newRecord();
var record = fs.getRecord(ridx);
record.emp_name = 'John';
if (databaseManager.hasNewRecords(fs)) {
        application.output("new records");
} else {
        application.output("no new records");
}
databaseManager.saveData();
databaseManager.commitTransaction();
```

hasRecordChanges

Boolean **hasRecordChanges** (foundset)

Returns true if the specified foundset, on a specific index or in any of its records, or the specified record has changes.

NOTE: The fields focus may be lost in user interface in order to determine the edits.

Parameters

{JSFoundSet} foundset - The JSFoundset to test if it has changes.

Returns

Boolean - true if there are changes in the JSFoundset or JSRecord.

Sample

```
if (databaseManager.hasRecordChanges(foundset,2))
{
        //do save or something else
}
```

hasRecordChanges

Boolean **hasRecordChanges** (foundset, index)

Returns true if the specified foundset, on a specific index or in any of its records, or the specified record has changes.

NOTE: The fields focus may be lost in user interface in order to determine the edits.

Parameters

{JSFoundSet} foundset - The JSFoundset to test if it has changes.
{Number} index - The record index in the foundset to test (not specified means has the foundset any changed records)

Returns

Boolean - true if there are changes in the JSFoundset or JSRecord.

Sample

```
if (databaseManager.hasRecordChanges(foundset,2))
{
        //do save or something else
}
```

hasRecords

Boolean **hasRecords** (foundset)

Returns true if the (related)foundset exists and has records.

Parameters

{JSFoundSet} foundset - A JSFoundset to test.

Returns

Boolean - true if the foundset/relation has records.

Sample

```
if (elements.customer_id.hasRecords(orders_to_orderitems))
{
        //do work on relatedFoundSet
}
//if (elements.customer_id.hasRecords(foundset.getSelectedRecord(),'orders_to_orderitems.
orderitems_to_products'))
//{
//        //do work on deeper relatedFoundSet
//}
```

hasRecords

Boolean **hasRecords** (record, relationString)

Returns true if the (related)foundset exists and has records.

Parameters

{JSRecord} record - A JSRecord to test.
{String} relationString - The relation name.

Returns

Boolean - true if the foundset/relation has records.

Sample

```
if (elements.customer_id.hasRecords(orders_to_orderitems))
{
        //do work on relatedFoundSet
}
//if (elements.customer_id.hasRecords(foundset.getSelectedRecord(),'orders_to_orderitems.
orderitems_to_products'))
//{
//        //do work on deeper relatedFoundSet
//}
```

hasTransaction

Boolean **hasTransaction** ()

Returns true if there is an transaction active for this client.

Returns

Boolean - true if the client has a transaction.

Sample

```
var hasTransaction = databaseManager.hasTransaction()
```

mergeRecords

Boolean **mergeRecords** (sourceRecord, combinedDestinationRecord)

Merge records from the same foundset, updates entire datamodel (via foreign type on columns) with destination record pk, deletes source record. Do use a transaction!

This function is very handy in situations where duplicate data exists. It allows you to merge the two records and move all related records in one go. Say the source_record is "Ikea" and the combined_destination_record is "IKEA", the "Ikea" record is deleted and all records related to it (think of contacts and orders, for instance) will be related to the "IKEA" record.

The function takes an optional array of column names. If provided, the data in the named columns will be copied from source_record to combined_destination_record.

Note that it is essential for both records to originate from the same foundset, as shown in the sample code.

Parameters

{JSRecord} sourceRecord - The source JSRecord to copy from.
{JSRecord} combinedDestinationRecord - The target/destination JSRecord to copy into.

Returns

Boolean - true if the records could me merged.

Sample

```
databaseManager.mergeRecords(foundset.getRecord(1),foundset.getRecord(2));
```

mergeRecords

Boolean **mergeRecords** (sourceRecord, combinedDestinationRecord, columnNames)

Merge records from the same foundset, updates entire datamodel (via foreign type on columns) with destination record pk, deletes source record. Do use a transaction!

This function is very handy in situations where duplicate data exists. It allows you to merge the two records and move all related records in one go. Say the source_record is "Ikea" and the combined_destination_record is "IKEA", the "Ikea" record is deleted and all records related to it (think of contacts and orders, for instance) will be related to the "IKEA" record.

The function takes an optional array of column names. If provided, the data in the named columns will be copied from source_record to combined_destination_record.

Note that it is essential for both records to originate from the same foundset, as shown in the sample code.

Parameters

{JSRecord} sourceRecord - The source JSRecord to copy from.
{JSRecord} combinedDestinationRecord - The target/destination JSRecord to copy into.
{String[]} columnNames - The column names array that should be copied.

Returns

Boolean - true if the records could me merged.

Sample

```
databaseManager.mergeRecords(foundset.getRecord(1),foundset.getRecord(2));
```

recalculate

void **recalculate** (foundsetOrRecord)

Can be used to recalculate a specified record or all rows in the specified foundset.
May be necessary when data is changed from outside of servoy, or when there is data changed inside servoy but records with calculations depending on that data where not loaded so not updated and you need to update the stored calculation values because you are depending on that with queries or aggregates.

Parameters

{Object} foundsetOrRecord - JSFoundset or JSRecord to recalculate.

Returns

void

Sample

```
// recalculate one record from a foundset.
databaseManager.recalculate(foundset.getRecord(1));
// recalculate all records from the foundset.
// please use with care, this can be expensive!
//databaseManager.recalculate(foundset);
```

refreshRecordFromDatabase

Boolean **refreshRecordFromDatabase** (foundset, index)

Flushes the client data cache and requeries the data for a record (based on the record index) in a foundset or all records in the foundset.
Used where a program external to Servoy has modified the database record.
Record index of -1 will refresh all records in the foundset and 0 the selected record.

Parameters

{Object} foundset - The JSFoundset to refresh
{Number} index - The index of the JSRecord that must be refreshed (or -1 for all).

Returns

Boolean - true if the refresh was done.

Sample

```
//refresh the second record from the foundset.
databaseManager.refreshRecordFromDatabase(foundset,2)
//flushes all records in the related foundset  (-1 is or can be an expensive operation)
databaseManager.refreshRecordFromDatabase(order_to_orderdetails,-1);
```

releaseAllLocks

Boolean **releaseAllLocks** ()

Release all current locks the client has (optionally limited to named locks).
return true if the locks are released.

Returns

Boolean - true if all locks or the lock is released.

Sample

```
databaseManager.releaseAllLocks('mylock')
```

releaseAllLocks

Boolean **releaseAllLocks** (lockName)

Release all current locks the client has (optionally limited to named locks).
return true if the locks are released.

Parameters

{String} lockName - The lock name to release.

Returns

Boolean - true if all locks or the lock is released.

Sample

```
databaseManager.releaseAllLocks('mylock')
```

removeTableFilterParam

Boolean **removeTableFilterParam** (serverName, filterName)

Removes a previously defined table filter.

Parameters

{String} serverName - The name of the database server connection.
{String} filterName - The name of the filter that should be removed.

Returns

Boolean - true if the filter could be removed.

Sample

```
var success = databaseManager.removeTableFilterParam('admin', 'higNumberedMessagesRule')
```

revertEditedRecords

void **revertEditedRecords** ()

Reverts outstanding (not saved) in memory changes from edited records.
Can specify a record or foundset as parameter to rollback.
Best used in combination with the function databaseManager.setAutoSave()
This does not include deletes, they do not honor the autosafe false flag so they cant be rollbacked by this call.

Returns

void

Sample

```
//Set autosave, if false then no saves will happen by the ui (not including deletes!). Until you call
saveData or setAutoSave(true)
//reverts in mem the records that were edited and not yet saved. Best used in combination with autosave
false.
databaseManager.setAutoSave(false)
//Now let users input data

//On save or cancel, when data has been entered:
if (cancel) databaseManager.revertEditedRecords()
//databaseManager.revertEditedRecords(foundset); // rollback all records from foundset
//databaseManager.revertEditedRecords(foundset.getSelectedRecord()); // rollback only one record
databaseManager.setAutoSave(true)
```

revertEditedRecords

void **revertEditedRecords** (foundset)

Reverts outstanding (not saved) in memory changes from edited records.
Can specify a record or foundset as parameter to rollback.
Best used in combination with the function databaseManager.setAutoSave()
This does not include deletes, they do not honor the autosafe false flag so they cant be rollbacked by this call.

Parameters

{JSFoundSet} foundset - A JSFoundset to revert.

Returns

void

Sample

```
//Set autosave, if false then no saves will happen by the ui (not including deletes!). Until you call
saveData or setAutoSave(true)
//reverts in mem the records that were edited and not yet saved. Best used in combination with autosave
false.
databaseManager.setAutoSave(false)
//Now let users input data

//On save or cancel, when data has been entered:
if (cancel) databaseManager.revertEditedRecords()
//databaseManager.revertEditedRecords(foundset); // rollback all records from foundset
//databaseManager.revertEditedRecords(foundset.getSelectedRecord()); // rollback only one record
databaseManager.setAutoSave(true)
```

rollbackTransaction

void **rollbackTransaction** ()

Rollback a transaction started by databaseManager.startTransaction().
Note that when autosave is false, rollbackEditedRecords() will not handle deleted records, while rollbackTransaction() does.
Also, rollbackEditedRecords() is called before rolling back the transaction see rollbackTransaction(boolean) to controll that behavior
and saved records within the transactions are restored to the database values, so user input is lost, to controll this see rollbackTransaction(boolean, boolean)

Returns

void

Sample

```
// starts a database transaction
databaseManager.startTransaction()
//Now let users input data

//when data has been entered do a commit or rollback if the data entry is canceld or the the commit did fail.
if (cancel || !databaseManager.commitTransaction())
{
        databaseManager.rollbackTransaction();
}
```

rollbackTransaction

void **rollbackTransaction** (rollbackEdited)

Rollback a transaction started by databaseManager.startTransaction().
Note that when autosave is false, rollbackEditedRecords() will not handle deleted records, while rollbackTransaction() does.
Also, saved records within the transactions are restored to the database values, so user input is lost, to controll this see rollbackTransaction(boolean, boolean)

Parameters

{Boolean} rollbackEdited - call rollbackEditedRecords() before rolling back the transaction

Returns

void

Sample

```
// starts a database transaction
databaseManager.startTransaction()
//Now let users input data

//when data has been entered do a commit or rollback if the data entry is canceld or the the commit did fail.
if (cancel || !databaseManager.commitTransaction())
{
	databaseManager.rollbackTransaction();
}
```

rollbackTransaction

void **rollbackTransaction** (rollbackEdited, revertSavedRecords)

Rollback a transaction started by databaseManager.startTransaction().
Note that when autosave is false, rollbackEditedRecords() will not handle deleted records, while rollbackTransaction() does.

Parameters

{Boolean} rollbackEdited - call rollbackEditedRecords() before rolling back the transaction
{Boolean} revertSavedRecords - if false then all records in the transaction do keep the user input and are back in the edited records list

Returns

void

Sample

```
// starts a database transaction
databaseManager.startTransaction()
//Now let users input data

//when data has been entered do a commit or rollback if the data entry is canceld or the the commit did fail.
if (cancel || !databaseManager.commitTransaction())
{
	databaseManager.rollbackTransaction();
}
```

saveData

Boolean **saveData** ()

Saves all outstanding (unsaved) data and exits the current record.
Optionally, by specifying a record or foundset, can save a single record or all records from foundset instead of all the data.

NOTE: The fields focus may be lost in user interface in order to determine the edits.
SaveData called from table events (like afterRecordInsert) is only partially supported depeding on how first saveData (that triggers the event) is called.
If first saveData is called with no arguments, all saveData from table events are returning immediatelly with true value and records will be saved as part of first save.
If first saveData is called with record(s) as arguments, saveData from table event will try to save record(s) from arguments that are different than those in first call.
SaveData with no arguments inside table events will always return true without saving anything.

Returns

Boolean - true if the save was done without an error.

Sample

```
databaseManager.saveData();
//databaseManager.saveData(foundset.getRecord(1));//save specific record
//databaseManager.saveData(foundset);//save all records from foundset

// when creating many records in a loop do a batch save on an interval as every 10 records (to save on
memory and roundtrips)
// for (var recordIndex = 1; recordIndex <= 5000; recordIndex++)
// {
//                foundset.newRecord();
//                someColumn = recordIndex;
//                anotherColumn = "Index is: " + recordIndex;
//                if (recordIndex % 10 == 0) databaseManager.saveData();
// }
```

saveData

Boolean **saveData** (foundset)

Saves all outstanding (unsaved) data and exits the current record.
Optionally, by specifying a record or foundset, can save a single record or all records from foundset instead of all the data.

NOTE: The fields focus may be lost in user interface in order to determine the edits.
SaveData called from table events (like afterRecordInsert) is only partially supported depeding on how first saveData (that triggers the event) is called.
If first saveData is called with no arguments, all saveData from table events are returning immediatelly with true value and records will be saved as part of first save.
If first saveData is called with record(s) as arguments, saveData from table event will try to save record(s) from arguments that are different than those in first call.
SaveData with no arguments inside table events will always return true without saving anything.

Parameters

{JSFoundSet} foundset - The JSFoundset to save.

Returns

Boolean - true if the save was done without an error.

Sample

```
databaseManager.saveData();
//databaseManager.saveData(foundset.getRecord(1));//save specific record
//databaseManager.saveData(foundset);//save all records from foundset

// when creating many records in a loop do a batch save on an interval as every 10 records (to save on
memory and roundtrips)
// for (var recordIndex = 1; recordIndex <= 5000; recordIndex++)
// {
//                foundset.newRecord();
//                someColumn = recordIndex;
//                anotherColumn = "Index is: " + recordIndex;
//                if (recordIndex % 10 == 0) databaseManager.saveData();
// }
```

saveData

Boolean **saveData** (record)

Saves all outstanding (unsaved) data and exits the current record.
Optionally, by specifying a record or foundset, can save a single record or all records from foundset instead of all the data.

NOTE: The fields focus may be lost in user interface in order to determine the edits.
SaveData called from table events (like afterRecordInsert) is only partially supported depeding on how first saveData (that triggers the event) is called.
If first saveData is called with no arguments, all saveData from table events are returning immediatelly with true value and records will be saved as part of first save.
If first saveData is called with record(s) as arguments, saveData from table event will try to save record(s) from arguments that are different than those in first call.
SaveData with no arguments inside table events will always return true without saving anything.

Parameters

{JSRecord} record - The JSRecord to save.

Returns

Boolean - true if the save was done without an error.

Sample

```
databaseManager.saveData();
//databaseManager.saveData(foundset.getRecord(1));//save specific record
//databaseManager.saveData(foundset);//save all records from foundset

// when creating many records in a loop do a batch save on an interval as every 10 records (to save on
memory and roundtrips)
// for (var recordIndex = 1; recordIndex <= 5000; recordIndex++)
// {
//                foundset.newRecord();
//                someColumn = recordIndex;
//                anotherColumn = "Index is: " + recordIndex;
//                if (recordIndex % 10 == 0) databaseManager.saveData();
// }
```

setAutoSave

Boolean **setAutoSave** (autoSave)

Set autosave, if false then no saves will happen by the ui (not including deletes!).
Until you call databaseManager.saveData() or setAutoSave(true)

If you also want to be able to rollback deletes then you have to use databaseManager.startTransaction().
Because even if autosave is false deletes of records will be done.

Parameters

{Boolean} autoSave - Boolean to enable or disable autosave.

Returns

Boolean - false if the current edited record could not be saved.

Sample

```
//Rollbacks in mem the records that were edited and not yet saved. Best used in combination with autosave
false.
databaseManager.setAutoSave(false)
//Now let users input data

//On save or cancel, when data has been entered:
if (cancel) databaseManager.rollbackEditedRecords()
databaseManager.setAutoSave(true)
```

setCreateEmptyFormFoundsets

void **setCreateEmptyFormFoundsets** ()

Turnoff the initial form foundset record loading, set this in the solution open method.
Simular to calling foundset.clear() in the form's onload event.

NOTE: When the foundset record loading is turned off, controller.find or controller.loadAllRecords must be called to display the records

Returns

void

Sample

```
//this has to be called in the solution open method
databaseManager.setCreateEmptyFormFoundsets()
```

startTransaction

void **startTransaction** ()

Start a database transaction.
If you want to avoid round trips to the server or avoid the posibility of blocking other clients
because of your pending changes, you can use databaseManager.setAutoSave(false/true) and databaseManager.rollbackEditedRecords().

startTransaction, commit/rollbackTransacton() does support rollbacking of record deletes which autoSave = false doesnt support.

Returns

void

Sample

```
// starts a database transaction
databaseManager.startTransaction()
//Now let users input data

//when data has been entered do a commit or rollback if the data entry is canceld or the the commit did fail.
if (cancel || !databaseManager.commitTransaction())
{
        databaseManager.rollbackTransaction();
}
```

switchServer

Boolean **switchServer** (sourceName, destinationName)

Switches a named server to another named server with the same datamodel (recommended to be used in an onOpen method for a solution).
return true if successful.
Note that this only works if source and destination server are of the same database type.

Parameters

{String} sourceName - The name of the source database server connection
{String} destinationName - The name of the destination database server connection.

Returns

Boolean - true if the switch could be done.

Sample

```
//dynamically changes a server for the entire solution, destination database server must contain the same
tables/columns!
//will fail if there is a lock, transaction , if repository_server is used or if destination server is
invalid
//in the solution keep using the sourceName every where to reference the server!
var success = databaseManager.switchServer('crm', 'crm1')
```