Introduction to Guernsey Software's Database Components

The Components

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Public Properties

Connections

DBC

IConnected

AutoCommit

type: boolean values: true/false Description

AutoCommit determines whether or not a commit is generated automatically for you after each statement. Set this to true if you want every statement committed. When set to false, you are responsible for issuing commits/rollbacks.

Setting AutoCommit to false can speed processing of multiple statements (such as during a call to update on the query component). Also note that if AutoCommit is set to true, you will not be able to rollback statements during an update if a failure occurs. For example, if you call update on a result set which has had 10 records changed, and the fifth one fails, you will not be able to rollback the first four updates when AutoCommit is true.

Connected

type: boolean values: true/false Description

Connected controls the first connection slot. Setting connected to true causes the connection component to connect on the first connection channel. This is provided for backward compatibility and for design time connection.

The connection component can support up to 12 connections at any one time. You can connect on a particular connection at run time by assigning to the public property IConnected[i] where i is the channel you want connected. So Connected is equivalent to IConnected[1]. You can determine which connection a query is issued on (as well as any updates associated with that query) by setting the ConnectionNo property on the query component to a value between 1 and 12 (see query component).

ConnectionMethod

type: TConnMethod

values: cmConnect/cmDriverConnect

Description

Connection method determines how information is passes to create a connection. Setting ConnectionMethod to cmConnect causes the connection component to only use the UserID, Password, and DataSource to create a connection.

If additional information is required to establish a connection then you should set this to cmDriverConnect and use the ConnectionStr to pass the necessary information. When enough information is provided in the ConnectionStr, a connection is established. If the information is not sufficient to create the connection then the driver will prompt for additional information. This information will be appending to the supplied ConnectionStr.

Other connection methods may be provided in the future.

ConnectionStr

type: String values: driver dependent

Description

The ConnectionStr property is used to pass driver specific information to a particular driver. See documentation on the specific driver for more information.

DataSource

type: String

values: an existing datasource (ODBC datasource or DB2 cataloqued database).

Description

The DataSource property specifies the datasource to which you want to establish a connection. This property is required when using the cmConnect method and you want to connect to a datasource other than the default datasource.

IsolationLvl

type: TIsolation

values: tiDefault/tiUnCommitted/tiCommitted/tiRepeatable/tiSerializable/tiVersioning

Description

IsolationLvl determines the type of transaction isolation you want to use. Possible values will depend on the server you are using. See the documention for you server for more information on isolation levels.

Password

type: String values: any valid string

Description

Password is used when cmConnect method is used. This is passed as the password by which to establish a connection to the datasource.

Procedures

Description
Procedures is used to get information about stored procedures. For datasources that support this, it will provide a list of stored procedures and allow you to get information about the columns/parameters of the stored proc.

Tables

Description

Tables is used to get information about tables in a database. For datasource that support this, it will provide a list of tables and allow you to get information about the fields/columns in the table. This is usefull when trying to determine the values to set for the parameters in a parameterized query.

UserID

type: String values: any valid string

Description

UserID is used when cmConnect method is used. This is passed as the user id by which to

establish a connection to the datasource.

BeforeCommit: TCommitEvent

BeforeCommit is called when the Commit method is invoked. It is called prior to the commit being issued to ODBC. This event can be used to prevent the commit from being issued by raising an exception.

BeforeRollback: TCommitEvent

BeforeRollback is called when the Rollback method is invoked. It is called prior to the rollback being issued to ODBC. This event can be used to prevent the rollback from being issued by raising an exception.

BeforeConnect: TConnectEvent

BeforeConnect is called when a connection is attempted, but prior to calling the ODBC API connect routines. This provides the opportunity to prompt the user for connection information or other pre-connection initialization.

BeforeDisconnect: TConnectEventThis event is called when a disconnect is requested, but prior to the disconnect being issued.

Commit

Defined as <u>ICommit(1)</u>. Provided for backward compatibility.

ICommit(cIndex: TConnection)
ICommit issues a commit on connection number cIndex. cIndex is an integer value between 1 and 12.

CommitAll

CommitAll will issue a commit on all connections. This is not isolated to a particular datasource. It will issue a commit on all connections for all datasources.

Defined as $\underline{\text{IRollback}}(1)$. Provided for backward compatibility.

IRollback(cIndex: TConnection)
IRollback issues a rollback on connection number cIndex. cIndex is an integer value between 1 and 12.

RollbackAll

RollbackAll will issue a rollback on all connections. This is not isolated to a particular datasource. It will issue a rollback on all connections for all datasources.

SetActiveState(AQuery: TGQuery; Active: Boolean) Internal use.

SetPreparedState(AQuery: TGQuery; Prepared: Boolean) Internal use.

AnyConnectionReturn Value Type: Boolean
Returns true if any connection channel is active.

GetActiveCount

Return Value Type: LongInt Returns the number of active queries using this connection component.

GetPreparedCountReturn Value Type: LongInt
Returns the number of prepared queries using this connection component.

Connections

Type: TConnectionSet Values: set of numbers from 1 to 12

Description

Read Only. Connections is a set of values from 1 to 12 that includes all of the channels which have active connections. For example if channels 1 and 3 are active then Connections will be [1, 3].

DBC[cIndex: TConnection]Type: pointer
Description
ReadOnly. DBC contains an array of connection handles. This is mainly for internal use.

IConnected[I: TConnection]

Type: Boolean values: true/false Description

IConnected is used to toggle a connection for any given channel. To connect on channel 3 issue IConnected[3] := True.

Query Component

Published properties

Active

Connection

ConnectionNo

EditFields

ExecDirect

<u>KeyFields</u>

Params

RetrieveAsNeeded

SQL

<u>UpdateTable</u>

Events

TScrollType = (stFirst, stLast, stNext, stPrior, stAbsolute);

TScrollEvent = procedure(Sender: TComponent; ScrollBy: TScrollType; ScrollInfo: LongInt) of Object;

TQueryActivateEvent = procedure(Sender: TComponent) of Object;

TUpdateEvent = procedure(Sender: TComponent) of Object;

TEditEvent = procedure(Sender: TComponent) of Object;

TOnFieldTextEvent = procedure(AField: TGField; var Value: String) of Object;

TRowChangedEvent = procedure(Sender: TComponent) of Object;

TRowsAffectedEvent = procedure(Sender: TComponent; Operation: TOperationTypes;

RowsAffected: LongInt) of Object;

TUpdateErrorEvent = procedure(Sender: TComponent; Stmt: pointer; Operation:

TOperationTypes; Response: TModalResult) of Object;

After/BeforeActivate

After/BeforeClose

After/BeforeDeleteRec

After/BeforeEditRec

After/BeforeFirst

After/BeforeInsertRec

After/BeforeLast

After/BeforeNext

After/BeforePrior

After/BeforeSave

After/BeforeScroll

After/BeforeUpdate

OnGet/OnSetFieldText

RowChanged

RowsAffected

<u>UpdateError</u>

Public Procedures

Append

<u>Cancel</u>

<u>Delete</u>

Execute

Insert

<u>ResetMode</u>

ResetRowFlags

ResetRows

<u>Save</u>

<u>SaveMode</u> Sort <u>UnDelete</u> <u>UnDo</u> <u>Update</u> **NotifyControls**

Public Functions

<u>BeforeEdit</u> <u>FieldByName</u> Find <u>FindField</u> <u>First</u> <u>Last</u> <u>Next</u> <u>Prior</u>

Public Properties

BOF <u>Buffer</u> **BufferSize** ControlsDisabled **CursorEOF EOF ExtendedInfo** Field **FieldCount Prepared** <u>QueryMode</u> RecordCount

<u>RecordNo</u> <u>RecordSize</u>

Active

Type: boolean values: true/false Description

Active opens and closes the cursor. Set this property to true to activate a statement which

returns a result set.

Connection

Type: String
Values: any string value which corresponds to the datasource property of an available connection component.

Description

Connection determines which datasource to use to activate the statement. The drop down list will show all datasources for which there is an available connection component.

ConnectionNo

Type: TConnection Values: integer from 1 to 12

Description

Connection connection component can maintain up to 12 connections (may vary depending on the server and the driver). The ConnectionNo property allows you to specify which connection to issue this query. This is also the connection that will be used to issue updates in the case of an editable result set.

EditFields

Type: TStrings Description

EditFields is a list of fields contained in UpdateTable (see below) that you want updated in your next call to Update. This property can be edited directly by assigned to the list or indirectly by using the UpdateTable property editor.

KeyFields

Type: TStrings Description

KeyFields is a list of fields contained in UpdateTable (see below) that you want to use as key fields to uniquely identify a row in your next call to Update. This property can be edited directly by assigned to the list or indirectly by using the UpdateTable property editor. Any non-blob type fields can be listed in this property.

ExecDirect

Values: true/false Description

The ExecDirect property determines the method of execution for a statement. If ExecDirect is true when Execute is called or Active is set to true then the statement is passed directly to the driver, bypassing a prepare. If ExecDirect is false, then the statement is prepare prior to passing it to the driver. Set ExecDirect to true when calling stored procedures or using ddl statements (such as create table, drop table, create index, etc.). Set ExecDirect to false if a statement will be executed repeatedly.

NOTE: when ExecDirect is set to false <u>field objects</u> are created after the prepare and prior to execution of the statement and are destroyed after Prepared is set to false.

Params

Type: TGParams Description

The Params property contains a list of parameter objects (<u>TGParam</u>) for the current statement. The parameters are re- created each time the statement is set. The properties for the parameter objects must be set prior to executing the statement (though, can be done after the statement has been prepared).

RetrieveAsNeeded

Type: Boolean Values: true/false Description

Use RetrieveAsNeeded to inform the query component to only download records as they are requested (via a call to Next, Last, or RecordNo). A call to Last will force the entire result set to downloaded.

SQL

Type: TStrings Description

SQL contains the statement that you want to execute. You can use the ODBC syntax for maximum portability (see an ODBC reference) or server specific syntax.

UpdateTable

Type: String Values: any valid table name

Description

UpdateTable should contain the name of the table to issue updates against. All fields listed in EditFields and KeyFields must be in this table. By changing these three properties between calls to Update, you can update queries that involve more than one table.

After/BeforeActivate: TQueryActivateEventOccur before and after the query is activated. That is when Active is set to true, these events are triggered.

After/BeforeClose: TQueryActivateEvent Occur when Active is set to false.

After/BeforeDeleteRec: TEditEvent

Occur when a record is deleted.

After/BeforeEditRec: TEditEvent

Occur before a record is edited for the first time since Save was last called.

After/BeforeFirst: TScrollEvent

Occur when First is called.

After/Before	InsertRec:	TEditEvent
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Occur when a record is inserted. You can use the after insert event to initialize new records.

After/BeforeLast: TScrollEvent

Occur when Last is called.

After/BeforeNext: TScrollEvent

Occur when Next is called.

After/BeforePrior: TScrollEvent

Occur when Prior is called.

After/BeforeSave: TEditEventOccur when the current record buffer is going to be saved to the list of record buffers.

After/BeforeScroll: TScrollEvent Occur when any scrolling takes place.

After/BeforeUpdate: TUpdateEvent Occurs when Update is called.

OnGet/OnSetFieldText: TOnFieldTextEvent

See Formatting display data in Users Guide.

RowChanged: TRowChangedEvent This event is called whenever a new record buffer is made active. This can happen when scrolling, saving, undo-ing, deleting, cancelling edits, inserting, etc. This event is called whenever all controls should refresh their data.

RowsAffected: TRowsAffectedEventSee Handling problems during the update operation in Users Guide.

AppendCall this method to append an empty record to the end of the record buffers

Cancel

Cancel will cancel edits to the current record.

Delete

Delete the current record

Execute

Use execute to send non-select statements to the DBMS, such as inserts/updates/deletes or DDL.

Insert

Insert an empty record buffer at the current position in the result set

ResetMode

Internal use

ResetRowFlagsThis method clears the "dirty" flags for the current record.

ResetRows

ResetRows clears the "dirty" flags for all rows in the result set. This should be called after a successful series of calls to Update. That is, once all of the current updates have been sent to the server, this should be called to reset all of the flags and clear out the deleted record buffers.

Save

Save any changes to the current record into the list of record buffers

SaveMode

Internal use

Sort(SortFields: string)

Call sort to re-sort the current result set. SortFields is a string contains a comma separated list of field names on which to do the sort. The default sort order is ascending. To perform a descending sort on a field add a des after the field name. For example to sort on a department number field ascending and employee last name descending: SortFields = "deptno, lastname des, firstname des". Sort order is not maintained as records are added and edited. Sort must be called after any edits that would cause the order to become unsorted.

UnDelete

Call UnDelete when positioned on a deleted record to restore it to the result set. That is the record will be removed from the list of deleted records and replaced in the result set buffers.

UnDo

Call UnDo when positioned on a modified record to return the record to its original state. The original state will be the state the record was in when it was first fetched from the server

Update

Update will send all edits (updates/inserts/deletes) to the server for fields currently in the EditFields list. To update multiple tables, reassign values to the EditFields, KeyFields, and UpdateTable properties between calls to update.

NotifyControls(NotifyEvent: TLinkEvent; Info: LongInt) Internal use

BeforeEdit

Return Value: Boolean

Internal use. BeforeEdit is call by the field objects before a value is assigned to them. If BeforeEdit returns false, the field rejects the assignment.

FieldByName(FieldName: String)
Return Value: TGField
Attempts to locate a field in the result set based on the field name. If the field is not found, the an exception is raised. If the field is found, then the field object is returned.

Find(FindVals: array of const)

Return Value: boolean

Attempts to find a record based on the field values passed in FindVals. The function assumes that the result set is sorted on the fields you are attempting to search on. The values are compared from left to right with the fields listed in the call to sort in order to find a match. The number of values passed to Find must be equal to or less than the number of fields listed in the call to Sort.

To find the first employee with a last name starting with the letter O in dept number 30 (using the sort mentioned above for the sort procedure) call Find([30, 'O']);

Find returns true if an exact match is found. Otherwise it returns false. The record position will be as follows: the next largest record if there is a record with a value larger than the search value, otherwise will be positioned on the last record of the result set.

FindField(FieldName: String)
Return Value: TGField
Attempts to locate a field in the result set based on the field name. If the field is not found, nil is returned. If the field is found, then the field object is returned.

First

Positions on the first record in the result set

Last

Makes the last record of the result set then active record. If RetrieveAsNeeded is true, then calling last will download the remaining records of the result set.

Next

Makes the record following the current record active

Prior Makes the record preceding the current record active

BOF

Type: Boolean Read Only. BOF is true if Prior is called when positioned on the first record.

Buffer

Type: TBuffers

Values: bData/bOriginal/bDeleted

Description

Buffer determines the record buffers which are currently active. bData is the default value and makes the editable record buffers active. Setting Buffer to bOriginal will make the original version of any edited records visible. bDeleted will make any deleted records visible. By making the deleted records visible, you can UnDelete records.

BufferSize

Type: LongInt Description

Read Only. BufferSize is used internally and represents the amount of memory required for each record buffer. This includes memory for row and field status flags as well as field data. Only four bytes is allocated for blob data in order to store a handle to a global memory object.

ControlsDisabled

Type: Boolean Description

Mainly used internally. Set this to True when performing operations which cause extensive scrolling in a query object. Internally this is set when Update is called to avoid redrawing of data controls as the active buffer is scrolled through the result set.

CursorEOF

Type: Boolean Description

Read Only. CursorEOF is set to true when the underlying cursor has reached the end of the result set. As soon as the cursor reaches the end of the result set, the cursor is closed.

EOF

Type: Boolean
Description
Read Only. EOF is true if Next is called when positioned on the last record.

ExtendedInfo

Type: TGExtFields
Description
ExtendedInfo is mainly used internally. It is used to stream extended field information to and from disk.

Field[I: Integer]
Type: TGField
Description
Returns the I'th field of the record. This is a 1 based array of field objects.

FieldCount

Type: LongInt
Description
Returns the total number of fields in the result set.

PreparedType: Boolean
Description

Use prepared to improve performance when a query will be executed multiple times. Be sure to set prepared to false when the query will no longer be needed to free up resources.

QueryModeType: TQueryMode
Values: qmViewing/qmEditing/qmInserting/qmClosed
Description
QueryMode returns the status of the query component.

RecordCount

Type: LongInt Description

RecordCount returns the number of record buffers in the active buffers. If RetrieveAsNeeded is true, then this number may not reflect the total number of records in the result set if all of the records have not been retrieved. This number will reflect the number of records that have been actually retrieved.

RecordNo

Type: LongInt
Description
RecordNo is a number between 1 and RecordCount which represents the active record.

RecordSize

Type: LongInt Description

RecordSize is for internal use only. It represents the number of bytes of storage required for the field data in a record. Note that blobs only occupy four bytes of storage in the record buffer to store a handle to a global memory object.

Binary Stream Objects

Under Construction

See Delphi On-Line help for information on streams. These components provide a stream object that is a standard stream. The only difference is the constructor. The constructor takes a reference to a binary field object. For example, to create a binary stream for an ODBC binary field:

MyStream := TODBCBinaryStream.Create(ODBCQuery1.FieldByName('MyBlobField') as TGBinaryField);

Field Objects

Public Procedures

<u>BindColumn</u>

Public Procedures: Binary/Blob Field Objects Only

LoadFromFile

LoadFromStream

ReadBlock

<u>SaveToFile</u>

<u>SaveToStream</u>

<u>Truncate</u>

WriteBlock

Public Properties

<u>AsDate</u>

AsFloat

<u>AsInteger</u>

<u>AsString</u>

<u>AsText</u>

<u>AsTime</u>

<u>AsTimeStamp</u>

<u>BufferSize</u>

<u>DataLen</u>

DataType

DisplayLabel

DisplaySize

<u>FieldName</u>

<u>FieldNo</u>

<u>IsNull</u>

Nullable

<u>Offset</u>

Precision

<u>Scale</u>

<u>SQLType</u>

<u>SortDir</u>

<u>Status</u>

<u>TableFieldName</u>

<u>TableName</u>

<u>Value</u>

BindColumn(RecBuffer: PChar; RecSize: LongInt)

Internal use

AsDate

Type: Date_Struct Description

Returns the field value in a date structure. Date and Timestamp field types can be access via the AsDate property.

AsFloat

Type: Double
Description
Returns the field value as a double. Float field types can be accessed using AsFloat.

AsInteger
Type: LongInt
Description
Returns an integer value for the field. All integer types can be access using AsInteger.

AsStringType: String
Description

AsString returns a string representation of the field value. All non-blob fields can be accessed as string.

AsText

Type: String Description

AsText returns a string representation of the field value after calling OnGetText or OnSetText of the quer component. All non-blob fields can be accessed as text.

AsTime

Type: Time_Struct Description

Returns the field value in a time structure. Time and Timestamp field types can be access via the AsTime property.

AsTimeStampType: TimeStamp_Struct
Description

Returns the field value in a timestamp structure. Timestamp field types can be access via the AsTimeStamp property.

BufferSize

Type: LongInt Description

BufferSize is the number of bytes that this field occupies in the record buffer. Blob fields, for instance, have a BufferSize of 4, which is the size of THandle.

DataLen

Type: LongInt
Description
Read Only. DataLen is the length of the field as returned by the driver.

DataType

Type: Integer

Values: SQL_C_CHAR/SQL_C_LONG/SQL_C_SHORT/SQL_C_FLOAT/SQL_C_DOUBLE

SQL_C_DATE/SQL_C_TIME/SQL_C_TIMESTAMP/SQL_C_BINARY/SQL_C_BIT/

SQL_C_TINYINT

Read Only. DataType is the format that the field reads the data from the driver.

DisplayLabelType: String
Description
DisplayLabel is used by the grid to determine the column heading for this field.

DisplaySizeType: LongInt
Description
DisplaySize is used by the grid to determine the initial column width for this field.

FieldName

Type: String Description

The name of the field as returned by the driver. Note that some drivers/DBMSs may rename duplicate columns (see TableFieldName property to be able to correctly update renamed columns).

FieldNo

Type: LongInt
Description
Read Only. Internal use.

IsNull

Type: Boolean
Description
IsNull is a read/write property to set the null status of a field. Set IsNull to true to set the field to null.

Nullable

Type: Integer
Values: SQL_NO_NULLS/SQL_NULLABLE/SQL_NULLABLE_UNKNOWN

Description

ReadOnly. Use this property to determine whether or not this field can accept null values.

Offset

Type: LongInt
Description
Internal use. This is the offset into the record buffer at which this fields data is stored.

Precision

Type: LongInt
Description
See DataLen property for the Param Object

Scale

Type: Integer
Description
See Scale for the Param Object

SQLTypeType: Integer
Description
See SQLType for the Param Object

SortDir

Type: TSortDir Values: sdAsc/sdDesc

Description

If this field is currently used for sorting then SortDir determines whether the order is ascending (sdAsc) or descending for this field. See Sort(...) method of the Query component.

Status

Type: TFieldStat

Values: fsOriginal/fsModified

Description

Read Only. An indicator to the status of this field for the current record. Returns fsModified if this field has been edited since the record has been retrieved or since the last call to

ResetRows.

TableFieldName

Type: String Description

Table Field Name is the name of the actual underlying field in the database. Usually this is the same as the FieldName, however in the case of aliased fields the two properties could differ. Use the UpdateTable property editor of the Query component to edit this value at design time.

TableName

Type: String read GetTableName Description Not used currently.

Value

Type: PChar
Description
Read Only. Returns the raw data buffer as retrieved from the driver. Mainly for internal

use.

LoadFromFile(FileName: String)LoadFromFile reads the specified file into the blob field.

LoadFromStream(aStream: TStream)LoadFromStream will read data from any stream into the blob field.

ReadBlock(Offset, Size: LongInt; Buffer: PChar; var BytesRead: LongInt)

ReadBlock will read a portion of the blob into the provided buffer. The memory for the buffer must have been allocated prior to the call to ReadBlock. BytesRead is set to the actual number of bytes copied into the provided buffer. Offset is the position in the blob to begin reading data (0 is the first byte). Size is the number of bytes to read. Size is not limited to 64k.

SaveToFile(FileName: String)SaveToFile will write the blob data to the specified file. If a file already exists with the provided name, it will be overwritten.

SaveToStream(aStream: TStream)
SaveToStream will write the blob data to any stream. See Delphi help for more information on streams.

Truncate(NewSize: LongInt)Use Truncate to reduce the size of a blob. This is only necessary if you use write block to write a new blob value to the field that is smaller than the current blob.

WriteBlock(Offset, Size: LongInt; Buffer: PChar)

Use WriteBlock to write raw binary data to the field. Offset is the starting position in the blob to begin writting data (0 is the first byte). If Offset + Size is larger than the current blob, new memory will be allocated automatically. However, Offset must be a value within the current blob.

Param Objects

Public Procedures

<u>BindParam</u>

Public Properties

<u>AsString</u>

<u>AsInteger</u>

<u>AsFloat</u>

<u>AsDate</u>

<u>AsTime</u>

<u>AsTimeStamp</u>

<u>BufferSize</u>

DataLen

<u>ParamName</u>

<u>Scale</u>

ParamType SQLType

<u>IsNull</u>

BindParam(DBC: pointer; Stmt: pointer) Internal use.

AsStringType: String
Read or write the parameter value as a string

AsInteger Type: LongInt Read or write the parameter value as an integer

AsFloat

Type: Double Read or write the parameter value as a double

AsDate

Type: Date_Struct Read or write the parameter value as a date

AsTime

Type: Time_Struct Read or write the parameter value as time

AsTimeStampType: TimeStamp_Struct
Read or write the parameter value as time stamp/date time

BufferSize Type: LongInt Internal use

DataLen

Type: LongInt
Meaning depends upon the SQLType. This corresponds to the precision value in ODBC and DB2. For character values this is the length of the string. For decimal/numeric types this is the number of digits in the number.

ParamName

Type: String
This is the name of the parameter in the statement. This is the name to use to access the parameter when using ParamByName to access the parameter.

Scale

Type: Integer
Meaning depends upon the SQLType. This corresponds to the scale value in ODBC and DB2.
For decimal/numeric types this is the number of digits after the decimal place in the number.

ParamType

Type: Integer

Values: SQL_PARAM_INPUT/SQL_PARAM_INPUT_OUTPUT/SQL_PARAM_RESULT_COL/

SQL_PARAM_OUTPUT/SQL_PARAM_RETURN_VALUE

Most common values for this property are input, input_output, or output. An input parameter is a parameter that does not recieve a value from the statement (such as parameters in the where clause of a select statement). An input_output parameter is a parameter that is to pass values to the server as well as recieve values back from the server (as in parameters to stored procedures that are input/output parameters). An output parameter is a parameter that is to recieve values back from the server (as in parameters to stored procedures that are output parameters).

SQLType

Type: Integer Values:

SQL_Char, SQL_Numeric, SQL_Decimal, SQL_Integer, SQL_SmallInt,

SQL_Float, SQL_Real, SQL_Double, SQL_VarChar, SQL_Date, SQL_Time,

SQL_TimeStamp, SQL_LongVarChar, SQL_Binary, SQL_VarBinary,

SQL_LongVarBinary, SQL_BigInt, SQL_TinyInt, SQL_Bit

This property informs the driver as to the underlying field type for the parameter. This value should be the same as the field to which the parameter is being compared (use the tables property of the connection component to determine the field type).

IsNull

Type: boolean Values: True/False

Set IsNull to true to pass a null value in a parameter to the server. If IsNull is false, then the value assinged via one of the assignment properties mentioned above is used.

Query Link Component

Published PropertiesQuery

QueryLink

type: TGQuery values: any ODBCQuery or DB2Query component

Description

The QueryLink component is an optional component which is provided for assisting in multi form applications. The QueryLink makes multi-form application simpler by allowing the developer to connect all of the data aware controls on a form to a query link at design time and then connect the QueryLink to the Query at run-time. This is useful when the Query that the controls reference resides on a different form.

DataGrid Component

Published Properties
DataSource
DisplayFields

DataEdit Component

Published Properties
DataField
DataSource

DataMemo Component

Published Properties
DataField
DataSource

DataImage Component

Published Properties
DataField
DataSource

DataField

type: String values: any valid field name contained in the associated DataSource

Description

The DataField property is the name of the field in a result set with which to associate the

data aware control.

DataSource type: TGNVControl

values: any valid Query or QueryLink component Description

The DataSource property should contain a reference to a Query or QueryLink component. This is the query with which the control should be associated.

DisplayFields

type: TStrings Description

DisplayFields should a list of fields contained in the associated query component that are to be displayed in the grid. The list should contain one field per line and the fields should appear in the order in which they should appear in the grid. An empty list will show all fields.