

RtDbGenID Ver. 1.01

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Compuserve: 100735,3273

RtDbGenID is a non-visual component which implements a unique number generator. All values will be saved into a table in database you work with. Every access which generates a new value locks this table and saves the generated value before releasing control, so that other users can safely run it parallel through the network. SQL queries as 'SELECT MAX(...)+1 FROM...' are a bit dangerous, because many users can theoretically execute this query at the same time and get the same results. Databases which support referential integrity can get over it, if the value is supposed for a field defined as unique, but even at the minimum it would rise an exception. dBase knows nothing about real uniqueness and in this case it can cause severe data errors.

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TRtdbGenID

Properties Methods

To make this component work at the minimum two properties must be set: Table property must point to a valid table from the current database and IDName property must give a name to a field where ID that is going to be used should be saved. Both of them dont need to exist, setting OnNewCreate property to True causes the component to create both the table and the field in the table if they dont exist. New ID values are generated on every call to NewValue method and are saved in the database. CurrentValue returns the last ID value that has been generated. When adding a large number of IDs is anticipated then AddValue method adds a constant number to the ID, which is faster then calling NewValue many times.

OnAccessClose

Declaration

property OnAccessClose: Boolean;

Description

By default after every access the ID table be closed. This is to make sure that changes are written into database. To speed things up you can set thos property to false, but then you have to close the table yourself.

OnNewCreate

Declaration

property OnNewCreate: Boolean;

Description

If this property is set True and it is so by default, then a field will be created for every accessed ID if it dont exist. Otherwise it must be present or an exception will be raised.

IDName

Declaration

property IDName: string;

Description

This is a name of the ID field. If this field doesn't exist and OnNewCreate is set True, the table would be restructured, otherwise an exception will be raised.

Table

Declaration

property Table: TTable;

Description

This is your database table, where all IDs will be saved. If it doesn't exist and the OnNewCreate property has been set True then it will be created, otherwise an exception will be raised.

CheckValue

Declaration

```
function CheckValue(const Database, TableName, FieldID: string): longint;
```

Description

This public method looks for a biggest Field ID value from TableName in Database using following SQL query:

```
SELECT MAX(FieldID) FROM TABLENAME
```

The result of the query, which is also functions result, is compared with the current IDs value, then the ID will be set to the bigger of the two.

CurrentValue

Declaration

```
function CurrentValue: longint;
```

Description

This public method returns the actual ID value as saved in the database. It shouldn't be used to get the ID because it returns the same value for all other users in network, too.

NewValue

Declaration

```
function NewValue: longint;
```

Description

This method generates new ID values. It saves each new generated value into the database before releasing locks and returning to the caller, so it shouldn't be possible to have a conflict with other users.

AddValue

Declaration

```
function AddValue(Value: longint): longint;
```

Description

Allows to change the current ID value by <Value>. It can be used if a range of new values is needed. This is much faster than calling the NewValue method many times. After that the generated values can be distributed manually.

SetValue

Declaration

```
procedure SetValue(Value: longint);
```

Description

Allows to set the current ID to any value. It should be used with care, because the new value can violate the uniqueness of the ID. This is a reason why this function is made protected, in order to use it you must first inherit the TRtDbGenID and publish this method.

Registration

<i>Product</i>	<i>Price</i>	<i>s&h</i>
RtDbGenID	\$10 (15 DM)	2\$ (3 DM)
RtControls	\$39 (60 DM)	2\$ (3 DM)

Only following payment methods will be accepted:

Compuserve: GO SWREG

ID# 7406 RtDbGenID alone

ID# 7197 RtControls

Checks: Only checks drawn on a US bank valued in US\$ or drawn on a German bank and valued in DM will be accepted. The checks should be made payable to **Tomasz Stanczak**. Please let us time after sending check, we cannot send you our product before the money is transferred.

Please fill in the Order Form and send with a payment to:

Tomasz Stanczak
Hardenbergstr. 8
31275 Lehrte
Germany

Credit Card Orders: You can order with MC, Visa, Amex, or Discover from Public (software) Library by calling 800-2424-PsL or 713-524-6394 or by FAX to 713-524-6398 or by CIS Email to 71355,470. You can also mail credit card orders to PsL at P.O.Box 35705, Houston, TX 77235-5705.

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CIS: 100735,3273
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To order please specify Item# 14429, RtControls Delphi VCL Pack, price \$39 plus s&h \$2 (e-mail) or \$4 (Europe) or \$6 overseas.

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Technical Notes

The shareware version of this component runs only if Delphi will be found in memory.

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Support

Support is available from the author via CompuServe Mail to 100735,3273 , Internet Mail to 100735.3273@compuserve.com or <http://ourworld.compuserve.com/homepages/tomasz>. Currently there is no postal, telephone, or fax support. All support is on a "best effort" basis, and no promise is made that all questions can be answered, problems solved, features added nor bugs exterminated.

Revision History

- 1.01** An error when adding an ID field has been corrected.
 CheckValue method is now a function returning the lowest possible value for an ID.
 AddValue and SetValue methods have been added.
- 1.00** this is the initial version.

Properties

OnAccessClose
OnNewCreate

IDName
Table

Methods

Create
Destroy
AddValue
CheckValue

CurrentValue
NewValue
SetValue

