

## Problem report - pgSchema

### pgDatabase

#### (declarations of pgDatabase)

23 Object variable declared As New: cnDatabase

#### pgDatabase.KillTypeCache

Dead procedure

#### pgDatabase.LookupType

Dead procedure

4 Object variable declared As New: rs

#### pgDatabase.KillLanguageCache

Dead procedure

#### pgDatabase.LookupLanguage

Dead procedure

4 Object variable declared As New: rs

#### pgDatabase.KillOperatorCache

Dead procedure

#### pgDatabase.LookupOperator

Dead procedure

4 Object variable declared As New: rs

#### pgDatabase.LookupComment

5 Object variable declared As New: rs

#### pgDatabase.Comment [Get]

5 Consider short circuit with nested Ifs

#### pgDatabase.Vacuum

13 Consider short circuit with nested Ifs

#### pgDatabase.DatabaseVarList [Get]

Dead procedure

#### pgDatabase.Grant

8 Object variable declared As New: rs

## **pgDatabase.Revoke**

8 Object variable declared As New: rs

## **Databases**

### **Databases.iAdd**

Function without type specification

### **Databases.Add**

7 Object variable declared As New: rs  
8 Object variable declared As New: rsComment  
9 Dead variable: rsUser  
9 Object variable declared As New: rsUser

### **Databases.Initialize**

6 Dead variable: szSQL  
7 Object variable declared As New: rs

## **basGlobal**

### **(declarations of basGlobal)**

18 Dead constant: ODBC\_CONNECT\_OPTIONS  
24 Dead constant: SQL\_GET\_USERS  
25 Dead constant: SQL\_GET\_GROUPS  
26 Dead constant: SQL\_GET\_SEQUENCES  
27 Dead constant: SQL\_GET\_VIEWS7\_1  
28 Dead constant: SQL\_GET\_VIEWS7\_3  
29 Dead constant: SQL\_GET\_TYPES7\_1  
30 Dead constant: SQL\_GET\_TYPES7\_3  
31 Dead constant: SQL\_GET\_DOMAINS  
32 Dead constant: SQL\_GET\_FUNCTIONS7\_1  
33 Dead constant: SQL\_GET\_FUNCTIONS7\_3  
34 Dead constant: SQL\_GET\_OPERATORS  
35 Dead constant: SQL\_GET\_RULES7\_1  
36 Dead constant: SQL\_GET\_RULES7\_3  
37 Dead constant: SQL\_GET\_TRIGGERS  
40 Dead constant: SQL\_GET\_COLUMNS7\_1  
41 Dead constant: SQL\_GET\_COLUMNS7\_2  
42 Dead constant: SQL\_GET\_COLUMNS7\_3  
43 Dead constant: SQL\_GET\_INDEXES  
44 Dead constant: SQL\_GET\_INDEX\_COLUMNS  
45 Dead constant: SQL\_GET\_CHECKS7\_2  
46 Dead constant: SQL\_GET\_CHECKS7\_3  
47 Dead constant: SQL\_GET\_INHERITED\_TABLES  
48 Dead constant: SQL\_GET\_AGGREGATES7\_1

49 Dead constant: SQL\_GET\_AGGREGATES7\_3  
50 Dead constant: SQL\_GET\_FOREIGN\_KEYS  
51 Dead constant: SQL\_GET\_NAMESPACES  
52 Dead constant: SQL\_GET\_CASTS  
53 Dead constant: SQL\_GET\_CONVERSIONS

### **basGlobal.GetVersionEx**

Dead declaration (called by dead only)

### **basGlobal.GetModuleFileName**

Dead declaration

### **basGlobal.fmtID**

16 Unicode function is faster: AscW  
19 Consider short circuit with nested Ifs

### **basGlobal.fmtTypeID**

4 Dead variable: iLen  
20 Unicode function is faster: AscW  
23 Consider short circuit with nested Ifs

### **basGlobal.ULEncode**

11 Unicode function is faster: AscW  
11 Unicode function is faster: AscW  
11 Consider short circuit with nested Ifs

### **basGlobal.GetUniqueID**

Dead procedure

### **basGlobal.WinVer**

Dead procedure

### **basGlobal.WinBuild**

Dead procedure

### **basGlobal.WinName**

Dead procedure

### **basGlobal.WinInfo**

Dead procedure  
11 Constant available: vbNullChar

## **Tables**

## **Tables.iAdd**

7 Dead variable: szSQL  
8 Object variable declared As New: rs

## **Tables.Add**

7 Object variable declared As New: rs

## **Tables.Rename**

7 Object variable declared As New: objTable

## **Tables.Initialize**

6 Object variable declared As New: rs

## **pgTable**

### **pgTable.Rows [Get]**

7 Object variable declared As New: rs

### **pgTable.Grant**

8 Object variable declared As New: rs

### **pgTable.Revoke**

8 Object variable declared As New: rs

### **pgTable.SQL [Get]**

10 Dead variable: objRelationship  
44 Consider short circuit with nested ifs

## **pgRelationship**

### **pgRelationship.NamespaceOID [Let]**

Dead procedure

### **pgRelationship.Namespace [Let]**

Dead procedure

### **pgRelationship.Connection [Set]**

Dead procedure

### **pgRelationship.Identifier [Let]**

Dead procedure

### **pgRelationship.LocalColumn [Let]**

Dead procedure

### **pgRelationship.ReferencedColumn [Let]**

Dead procedure

## **pgNamespace**

### **pgNamespace.Connection [Set]**

Dead procedure

### **pgNamespace.Oid [Let]**

Dead procedure

### **pgNamespace.Name [Let]**

Dead procedure

### **pgNamespace.Identifier [Let]**

Dead procedure

### **pgNamespace.SystemObject [Let]**

Dead procedure

### **pgNamespace.Owner [Let]**

Dead procedure

### **pgNamespace.ACL [Let]**

Dead procedure

### **pgNamespace.Grant**

8 Object variable declared As New: rs

### **pgNamespace.Revoke**

8 Object variable declared As New: rs

## **DatabaseVars**

**(declarations of DatabaseVars)**

9 Dead variable: szName  
10 Dead variable: szValue

### DatabaseVars.iAdd

2 Parameter without type specification: szValue  
6 Object variable declared As New: objVar

### DatabaseVars.Refresh

6 Dead variable: szSQL  
8 Object variable declared As New: rs

### DatabaseVars.Initialize

6 Dead variable: szDatabaseVars  
29 Consider short circuit with nested Ifs

## basDepend

### basDepend.DepRef

9 Object variable declared As New: colDep  
10 Variable without type specification: objTmp

### basDepend.AddObjDepend

2 Parameter without type specification: ObjFind  
6 Variable without type specification: objTmp

### basDepend.GetObjectTypePgClass

Function without type specification  
8 Variable without type specification: objTmp

## Problematic areas

File	Problem count
basGlobal	45 *****
pgDatabase	16 ***
pgNamespace	9 **
DatabaseVars	8 *
Databases	7 *
pgRelationship	6 *
basDepend	6 *
pgTable	5 *
Tables	5 *

## Problem summary

Problem Count	Type
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Consider short-circuited logic
  Optim.          7
Constant available
  Optim.          1
Dead constant
  Optim.          29
Dead procedure/declaration/event
  Optim.          26
Dead procedure/declaration/event (called by dead only)
  Optim.          1
Dead variable/parameter
  Optim.          9
Function without type specification
  Optim.          2
Object variable declared As New
  Optim.          23
Unicode function is faster
  Optim.          4
Variable without type specification
  Optim.          5

```

Type	Count
Optimization	107 *****
Total	107
Problems/logical code line	0.03

Filter: <Default>

## Problem descriptions

### Consider short-circuited logic

In the expressions (x And y), (x Or y), both operands (x, y) are evaluated. Short-circuiting means rewriting this so that when x=False in (x And y), y is not evaluated. The same goes for x=True in (x Or y). This saves CPU cycles, especially if y is a complex expression. In VB.NET, consider replacing And with AndAlso, and Or with OrElse. In VB Classic, consider splitting an If ..And.. condition as two nested Ifs. Short-circuiting If ..Or.. yields more complex code, usable case by case. Risks: Short-circuiting changes the logic. If the second operand calls a function, this call may not execute. Read VB help for differences between And/AndAlso and Or/OrElse. Optimization. Severity: Info.

### Constant available

A constant is available in place of a function call. Use a string constant instead of Chr/ChrW. The available string constants and their ASCII values are:

vbNullChar (0), vbBack (8), vbTab (9), vbLf (10), vbVerticalTab (11), vbFormFeed (12), vbCr (13), vbCrLf or vbNewline (13 & 10). vbNewline is faster than vbCrLf. Successive Chr(13) & Chr(10) should be replaced by vbNewline, not vbCrLf & vbLf. - Instead of a call such as Asc("A"), use a numeric constant such as Const ascA = 65. - These rules apply to VB 4-6. In VB.NET the compiler takes care of optimizing the use of these functions. Optimization. Severity: Info.

#### **Dead constant**

A variable or constant is not used. You may remove it if you are sure you won't need it later. The removal doesn't affect the functionality of your program. Optimization. Severity: Warning.

#### **Dead procedure/declaration/event**

A procedure, a DLL declaration or an Event declaration is not used by the project. It is not called by the code nor executed by any other means. You may remove it if you are sure you won't need it later. The removal doesn't affect the functionality of your program. - Event declarations are reported dead only if they are not raised nor handled. See the problem Event not raised for events that would be handled but that don't fired. Optimization. Severity: Warning.

#### **Dead procedure/declaration/event (called by dead only)**

You should remove this procedure along with its callers, provided that you are sure you won't need any of the callers later. Optimization. Severity: Warning.

#### **Dead variable/parameter**

A variable or constant is not used. You may remove it if you are sure you won't need it later. The removal doesn't affect the functionality of your program. Optimization. Severity: Warning.

#### **Function without type specification**

A function does not have a defined return data type. By default, the type is Variant. Variant needs more memory than other types. Decide what type you need and write it to the function declaration. Besides, upgrading to VB.NET will be easier if you use explicit data types. Fix recommended before upgrade. Optimization. Severity: Warning.

#### **Object variable declared As New**



In VB Classic, declaring an object variable As New creates an auto-instantiating variable. Each time you read the contents of the variable, VB first checks if the variable contains an object, and creates one if not.

This adds overhead, thus slowing your program down. To achieve better performance, remove the word New from the declaration, and instantiate your

variable (Set x = New Class) before it is used. It makes sense to test with 'If x Is Nothing Then' before accessing the variable, to avoid the run-time error

'Object variable not set'. In addition, VB.NET has different semantics for As

New. Applies to VB 3-6. Optimization. Severity: Warning.

#### **Unicode function is faster**

The wide functions AscW and ChrW/ChrW\$ are faster than the Asc/Chr/Chr\$ alternatives. VB works internally in Unicode, so the unicode versions run

faster. They are not the same functions though. If you're handling ASCII

characters from 0 to 127, you're safe to replace Asc with AscW and Chr with

ChrW/ChrW\$. Applies to VB4 and later. Optimization. Severity: Info.

#### **Variable without type specification**

A variable does not have a defined data type. By default, the type is Variant.

Variant needs more memory than other types. Decide what type you need and write

it to the variable declaration. Besides, upgrading to VB.NET will be easier if

you use explicit data types. Fix recommended before upgrade.

Optimization.

Severity: Warning.