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## Reusable Forms

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## Initialization File Functions

[InitIni](#) - Initialize initialization file parameters

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## InitIni

Initializes the ini file module

### Syntax

```
InitIni(sApplicationName, sIniFileName)
```

### Remarks

This subroutine is called once during program start up to set the names of the application and the ini file.

The InitIni uses the following parts:

*sApplicationName*      String expression containing the application name.

*sIniFileName*          String expression containing the ini file name

### Example

```
InitIni "MIS Application", "misapp.ini"
```

Module: [RUFINI.BAS](#)

## WriteToIni

Writes a value to the application's initialization file

### Syntax

**WriteToIni** (*sKey*, *sValue*)

### Remarks

Use this subroutine to store ini file values.

The WriteToIni uses the following parts:

*sKey*               String expression containing the key for identifying the value

*sValue*   String expression containing the value to be saved

### Examples

**WriteToIni** "DatabasePath", "c:\data\db.mdb"

**WriteToIni** "Xcord", "55"

**Module:** [RUFINI.BAS](#)

## GetFromIni

Returns a string from the application's initialization file.

### Syntax

```
sValue = GetFromIni (sKey, nSize)
```

### Remarks

Use this function to retrieve a value in the form of a string from an initialization file.

The GetFromIni uses the following parts:

*sKey*               String expression containing the key for identifying the value

*nSize*              Numeric expression containing the maximum size of the return string

### Return Value

*sValue* The value in a string expression from the initialization file.

### Example

```
Dim sPath as string
```

```
sPath = GetFromIni ("DatabasePath", 100)
```

**Module:** [RUFINI.BAS](#)

## Message Box Functions

[InitMB](#) - Initializes the message box module

[AskUser](#) - Prompts the user for a confirmation

[InformUser](#) - Displays a message with an exclamation icon

[StopUser](#) - Displays a message with a stop icon

## InitMB

Set the application name in the message box module

### Syntax

**InitMB** *sApplicationName*

### Remarks

Call this subroutine at program start up to set the name of the application. This name will appear in the title bar of the message box.

*sApplicationName*      String expression containing the application name

### Example

**InitMB** MainForm.caption

Module: [RUFMB.BAS](#)

## AskUser

Asks the user to answer "Yes" or "No" to a message box prompt. Uses the question mark icon and sounds a beep.

### Syntax

**AskUser** (*sQuestion*)

### Remarks

Use this function to ask the user to confirm a action.

*sQuestion*      String expression containing the message in the form of a question.

### Return Value

bResponse      Boolean expression: True for a "Yes" selection; False for "No".

### Example

```
Dim bResponse as integer
If AskUser ("Do you want to exit?") then
    end
endif
```

Module: [RUFMB.BAS](#)

## InformUser

Displays a message box with the supplied message with the exclamation icon and an "OK" button and sounds a beep.

### Syntax

**InformUser** *sMsg*

### Remarks

Use the subroutine to show a message to the user

*sMsg* String expression containing the message.

### Example

**InformUser** "The record can not be found!"

Module: [RUFMB.BAS](#)

## StopUser

Displays a message box with the supplied message with the stop icon and an "OK" button and sounds a beep.

### Syntax

**StopUser** *sMsg*

### Remarks

Use the subroutine to show a message to the user

*sMsg* String expression containing the message.

### Example

**StopUser** "Fatal error!"

Module: [RUFMB.BAS](#)

## Help Functions

[InitHelp](#) - Initializes the help function module.

[CallHelp](#) - Calls help for a particular topic.

[EndHelp](#) - Closes a help file associated with the current application.

[HelpContents](#) - Calls the help contents for the current help file.

[HelpIndex](#) - Calls the help index for the current help file.

[HelpSearch](#)

# InitHelp

Initializes the help function module.

## Syntax

**InitHelp** *sFile*, *hMainWnd*

## Remarks

Use InitHelp at program start up to set the name of the help file and the program's handle.

The **InitHelp** uses the following parts:

*sFile*               String expression containing the name of the help file.

*hMainWnd*        Handle (integer expression) of the main form of the application.

## Example

**InitHelp** "myapp.hlp", MainForm.hWnd

**Module:** [RUFHELP.BAS](#)

## CallHelp

Calls the application's help file and the topic for the supplied context ID.

### Syntax

```
CallHelp IContext
```

### Remarks

Place CallHelp in a form's KeyDown event and set the form's KeyPreview property to True. When the F1 key is pressed you can trap the key press and call the topic context ID.

```
IContext            Long expression of the context ID.
```

### Example

```
Const CONTEXT_ID& = 1234

Sub Form_KeyDown (KeyCode As Integer, Shift As Integer)
  If KeyCode = KEY_F1 Then
    CallHelp CONTEXT_ID
  End If
End Sub
```

Module: [RUFHELP.BAS](#)

# EndHelp

End WinHelp when you close your application.

## Syntax

```
EndHelp
```

## Remarks

Call EndHelp when you close your application; if your help file is still running this subroutine will close it for you.

## Example

```
Sub Form_Unload (Cancel As Integer)  
    EndHelp  
End  
Exit Sub
```

**Module:** [RUFHELP.BAS](#)

# HelpContents

Calls the help content of your applications help file.

## Syntax

**HelpContents**

## Remarks

Call this subroutine to view the correct topic of your help file.

## Example

```
Sub helpMenu_Click (Index As Integer)
```

```
    Select Case Index
```

```
        Case 1 'contents
```

```
            HelpContents
```

```
        Case 2 'index
```

```
            HelpIndex
```

```
    End Select
```

```
End Sub
```

**Module:** [RUFHELP.BAS](#)

# HelpIndex

Calls the help index of your applications help file.

## Syntax

**HelpIndex**

## Remarks

Call this subroutine to view the index topic of your help file.

## Example

```
Sub helpMenu_Click (Index As Integer)
```

```
    Select Case Index
```

```
        Case 1 'contents  
            HelpContents
```

```
        Case 2 'index  
            HelpIndex
```

```
    End Select
```

```
End Sub
```

**Module:** [RUFHELP.BAS](#)

## General Functions

[AddNewItem](#) - Adds a string and an ID (to the ItemData property) to a list or combo box.

[ArrowCursor](#) - Changes the cursor to an arrow.

[CenterFromScreen](#) - Centers a form on a screen.

[CenterIt](#) - Centers a form on top of another form.

[CheckCmdLine](#) - Check for the presents of a command line switch.

[Encrypt](#) - Encrypts or decrypts a string of characters.

[FillFullScreen](#) - Resizes a form to fill the whole screen without maximizing the form.

[FindProgram](#) - Determines if another instance of the same program is already running.

[GetCmdLineStr](#) - Retrieves a parameter from a command line switch.

[HourglassCursor](#) - Changes the mouse pointer to an hourglass.

[ModalForm](#) - Centers and displays a form in a modal fashion.

[ModelessForm](#) - Centers and displays a form in a modeless fashion.

[SelectText](#) - Highlight the entire text in an edit control.

[ShowYesNo](#) - Converts boolean values of True or False to "Yes" or "No" strings.

## AddNewItem

Adds a new item to a list or combo box along with a ItemData value.

### Syntax

```
AddNewItem ctrlControl, sItem, lItemIndex
```

### Remarks

Use this subroutine when filling a list with items that have accompanying ID numbers

The AddNewItem uses the following parts:

<i>ctrlControl</i>	List or combo box control.
<i>sItem</i>	String expression of the item to add to the list.
<i>lItemIndex</i>	Long number ID associated with the item added to the list.

### Example

```
AddNewItem "September", 9  
AddNewItem "October", 10  
AddNewItem "November", 11  
AddNewItem "December", 12
```

Module: [RUFUTIL.BAS](#)

## ArrowCursor

Changes the mouse cursor to an arrow.

### Syntax

**ArrowCursor**

### Example

**ArrowCursor**

**Module:** [RUFUTIL.BAS](#)

## CenterFromScreen

Centers a form based on current screen dimensions.

### Syntax

```
CenterFromScreen frmMyForm
```

### Remarks

Use this subroutine to center a form prior to displaying it. Subroutines [ModalForm](#) and [ModelessForm](#) both use CenterFromScreen.

```
frmMyForm    Form to be centered.
```

### Example

```
Load frmNew  
CenterFromScreen frmNew  
frmNew.Show 1
```

**Module:** [RUFUTIL.BAS](#)

## CenterIt

Centers one form on top of another form.

### Syntax

```
CenterIt frmOld, frmNew
```

### Remarks

Use this subroutine to center a form prior to displaying it.

The CenterIt uses the following parts:

```
frmOld      Form currently displayed.  
frmNew     Form about to be displayed.
```

### Example

```
Load SubForm  
CenterIt MainForm, SubForm  
SubForm.Show 1
```

**Module:** [RUFUTIL.BAS](#)

## CheckCmdLine

Checks the comand line for the presence of a comand line switch.

### Syntax

```
bPresent = CheckCmdLine sPram
```

### Remarks

Use CheckCmdLine to deterime what parameters have been set. The function ignores case.

*sPram*           String expression containing the parameter to check for.

### Return Value

*bPresent*       Boolean expression: True - string found; False - string not found.

### Example

```
If Not CheckCmdLine "nologo" Then  
    AboutBox  
EndIf
```

Module: [RUFUTIL.BAS](#)

# Encrypt

Encrypts or decrypts a string.

## Syntax

```
sEncryptStr = Encrypt sString
```

## Remarks

Use Encrypt to encode a password. Passing an encrypted string to Encrypt returns the unencrypted string.

*sString*           String expression to encrypt or decrypt.

## Return Value

*sEncryptStr*           Encrypted or decrypted string expression.

## Example

```
sPassword = Encrypt "password"
```

Module: [RUFUTIL.BAS](#)

## FillFullScreen

Resizes a form to fill the full screen without maximizing it.

### Syntax

```
FillFullScreen frmMyForm
```

### Remarks

Use FillFullScreen when you don't want to display the form fully maximized.

```
frmMyForm     Form to resize.
```

### Example

```
FillFullScreen MainForm
```

Module: [RUFUTIL.BAS](#)

# FindProgram

Determines if another instance of the same program is already running and ends the current program if a another instance is found.

## Syntax

**FindProgram** *sCaption*

## Remarks

Use FindProgram during program startup to allow only one instance to run at a time. In order for **FindProgram** to work, you must not set the caption of your main form until after you call **FindProgram**. Otherwise **FindProgram** will find the current instance of the program an not a previous running instance.

*sCaption*      String expression containing the caption of the programs main form.

## Example

```
MainForm.Caption = "" 'should be blank  
FindProgram TheAppTitle  
MainForm.Caption = TheAppTitle
```

**Module:** [RUFUTIL.BAS](#)

## HourglassCursor

Changes the mouse cursor to an hourglass.

### Syntax

**HourglassCursor**

### Example

**HourglassCursor**

**Module:** [RUFUTIL.BAS](#)

## ModalForm

Loads, centers and displays a modal form.

### Syntax

```
ModalForm frmNew
```

### Remarks

*frmNew* Form to display.

### Example

```
ModalForm MyForm
```

Module: [RUFUTIL.BAS](#)

## ModelessForm

Loads, centers and displays a modalless form.

### Syntax

```
ModelessForm frmNew
```

### Remarks

*frmNew* Form to display.

### Example

```
ModelessForm MyForm
```

Module: [RUFUTIL.BAS](#)

## SelectText

Select or highlights all the in an edit control, mask edit, etc...

### Syntax

**SelectText** *ctrlText*

### Remarks

As one tabs around a Windows data input screen the text in each text control is highlighted when it receives the focus. But for this behavior to happen the text must be "selected" when (1)the program populates the fields with data and (2) a field loses focus.

*ctrlText* Control containing text.

### Example

**SelectText** txtAddress

Module: [RUFUTIL.BAS](#)

## ShowYesNo

Converts boolean values True and False to "Yes" or "No".

### Syntax

```
sStr ShowYesNo bVal
```

### Remarks

*bVal* Boolean expression.

### Return Value

*sStr* String expression.

### Example

```
sStr = ShowYesNo (True) ' sStr = "Yes"
```

Module: [RUFUTIL.BAS](#)

## GetCmdLineStr

Returns a parameter string from the command line.

### Syntax

```
sParameter = GetCmdLineStr sCmdSwitch
```

### Remarks

Use this function to retrieve a user supplied parameter from the command line. Command line parameters must follow this syntax: <Switch>:<ParameterString>. The colon is required. GetCmdLineString will ignore the case of characters.

*sCmdSwitch*    String expression of the switch to search for.

### Return Value

*sParameter*    String expression containing the user supplied parameter.

### Example

```
'command line: myapp.exe ini:myapp2.ini
'check for alternate .ini file
sParameter = GetCmdLineStr "ini"
If strcmp(sParameter, "" ) = 0 Then
    sIniFile = sParameter
Else
    sIniFile = "myapp.ini"
EndIF
```

**Module:** [RUFUTIL.BAS](#)

## Check State Function

Validates a two character state abbreviation.

### Syntax

```
bOK = CheckState (sState)
```

### Remarks

CheckState check for valid state abbreviation including Proto Rico and the Virgin Islands.

sState String expression of a two character state abbreviation in **upper case**.

### Example

```
bOK = CheckState ("GA")    'bOK = True
```

Module: [RUFSTATE.BAS](#)

## MAPI Functions

[SendSingleMailMsg](#) - Send a Single Mail Message

[InitMultiMapi](#) - Initialize the MAPI module for a mutli-mailing session.

[ConstructMultiMailMsg](#) - Send one message during a mutli-mailing session.

[MapiSignOff](#) - End the current MAPI session.

## SendSingleMailMsg

Initiate a MAPI session, sends a message and closes the session.

### Syntax

**SendSingleMailMsg** *frmMapi*, *sSubject*, *sMsg*, *sName*

### Remarks

The subroutine simplifies the process of sending a email message.

The SendSingleMailMsg uses the following parts:

<i>frmMapi</i>	Form containing the MAPI controls
<i>sSubject</i>	String expression containing the subject of the message.
<i>sMsg</i>	String expression containing the e-mail message.
<i>sName</i>	String expression containing the name of the message recipient.

### Example

**SendSingleMailMsg** MailForm, "Attention", "Your work is overdue!", "Joe Cool"

**Module:** [RUFMAIL.BAS](#)

## InitMultiMapi

Initializes the MAPI module for sending several message during a MAPI session.

### Syntax

```
bOK = InitMultiMapi (frmMail)
```

### Remarks

Use **InitMultiMapi** along with [ConstructMultiMailMsg](#) and [MapiSignOff](#) when sending out more than one e-mail message per session.

*frmMail*            Form containing the MAPI controls.

### Return Value

*bOK*                Boolean expression; True if the session startup was successful.

### Example

```
If InitMultiMapi (MailForm) Then  
    ConstructMultiMailMsg (sSubject, sMessage, "Joe Cool")  
    ConstructMultiMailMsg (sSubject, sMessage, "Joe Cool, Jr.")  
    MapiSignOff  
EndIf
```

**Module:** [RUFMAIL.BAS](#)

## ConstructMultiMailMsg

Constructs and send a message during a multi-message MAPI session.

### Syntax

**ConstructMultiMailMsg** (*sSubject*, *sMsg*, *sName*)

### Remarks

The MAPI session must be initialized first by using [InitMultiMapi](#) and concluded with [MapiSignOff](#).

The ConstructMultiMailMsg uses the following parts:

*sSubject*       String expression containing the subject of the message.  
*sMsg*           String expression containing the e-mail message.  
*sName*       String expression containing the name of the message recipient.

### Return Value

*bOK*           Boolean expression; True if message sent successfully

### Example

```
If InitMultiMapi (MailForm) Then
    ConstructMultiMailMsg (sSubject, sMessage, "Joe Cool")
    ConstructMultiMailMsg (sSubject, sMessage, "Joe Cool, Jr.")
    MapiSignOff
EndIf
```

**Module:** [RUFMAIL.BAS](#)

## MapiSignOff

Closes the current MAPI session.

### Syntax

**MapiSignOff**

### Remarks

Use MapiSignOff after sending multi e-mail messages.

### Example

```
If InitMultiMapi (MailForm) Then
    ConstructMultiMailMsg (sSubject, sMessage, "Joe Cool")
    ConstructMultiMailMsg (sSubject, sMessage, "Joe Cool, Jr.")
    MapiSignOff
EndIf
```

**Module:** [RUFMAIL.BAS](#)

## Date/Time Validation Functions

[ValidateDate](#) - Validates a date string.

[ValidateTime](#) - Validates a time string.

## ValidateDate

Determines if a string in a mask edit control contains a valid date.

### Syntax

```
bOK = ValidateDate (ctrlMaskEdit)
```

### Remarks

The date format is mm/dd/yyyy.

*ctrlMaskEdit*    MaskEdit control that contains a date string

### Return Value

*bOK*            Boolean expression; True if the date is valid.

### Example

```
If Not ValidateDate (txtMaskEdit) then  
    Beep  
EndIf
```

Module: [RUFTIME.BAS](#)

## ValidateTime

Determines if a string contains a valid 12 hour format time.

### Syntax

*bOK* = **ValidateTime** (*sTime*)

### Remarks

The time format expected is HH:MM AM/PM.

*sTime*           String contain a time in 12 hour format.

### Return Value

*bOK*            Boolean expression; True if the date is valid.

### Example

```
If Not ValidateTime (sTime) then  
    Beep  
EndIf
```

Module: [RUFTIME.BAS](#)

## Database Functions

- [AddQuote](#) - Adds a single quote mark where one has been removed.
- [AddQuoteV](#) - Adds a single quote mark where one has been removed, uses a variant parameter.
- [AddToInsert](#) - Adds a value to an insert statement.
- [AddToUpdate](#) - Adds a value to an update statement.
- [AddToUpdateV](#) - Adds a value to an update statement, uses a variant parameter.
- [CheckAndSaveCbo](#) - Adds new items from a combo box to a list stored in a database table.
- [CompactDB](#) - Compacts a database.
- [CreateInsert](#) - Starts a new insert statement.
- [CreateUpdate](#) - Starts a new create statement.
- [DatabaseError](#) - Displays a database error message.
- [ExecuteInsert](#) - Executes an SQL statement.
- [GetCBOID](#) - Returns the item data value for a combo box selection.
- [GetID](#) - Returns a new ID number.
- [GetInsertStatement](#) - Returns a complete SQL insert statement.
- [GetLBID](#) - Returns the item data value for a list box selection.
- [GetUpdateStatement](#) - Returns a complete SQL update statement.
- [KeyFound](#) - Determines is a key value already exists in the database
- [LoadCombo](#) - Fills a combo box with database records.
- [LoadListBox](#) - Fills a list box with database records.
- [RemoveQuote](#) - Remove a single quote from a string and replaces it with another character.
- [ScanCombo](#) - Scans a combo box for a unique item data value.
- [ScanListBox](#) - Scans a list box for a unique item data value.
- [ScanMultiListBox](#) - Scans a multi select list box for a unique item data value.
- [SetSystemDB](#) - Set the name of the system table that maintains available ID numbers.

# AddQuote

Inserts single quote marks into a string that had the remove previously.

## Syntax

```
sNewString = AddQuote(sOldString)
```

## Remarks

Use AddQuote to insert single quote marks that have been removed during the process of adding records to a database through the [AddToUpdate](#) or [AddToInsert](#) or [RemoveQuote](#) functions. These functions replace the single quote with the backward quote mark (').

*sOldString*      String expression.

## Return Value

*sNewString*      String expression.

## Example

```
Dim sTmp$  
sTmp = dsData("LastName")  
sTmp = AddQuote(sTmp)
```

**Module:** [RUFDB.BAS](#) Database functions

## AddQuoteV

Inserts single quote marks into a string that had the remove previously. This version of the function takes a variant rather than a string parameter.

### Syntax

```
sNewString = AddQuoteV(vOldString)
```

### Remarks

Use AddQuote to insert single quote marks that have been removed during the process of adding records to a database through the [AddToUpdate](#) or [AddToInsert](#) or [RemoveQuote](#) functions. These functions replace the single quote with the backward quote mark (').

*vOldString* Variant expression, such as a dynaset or snapshot record set member.

### Return Value

*sNewString* String expression.

### Example

```
sTmp = AddQuoteV(dsData("LastName"))
```

**Module:** [RUFDB.BAS](#) Database functions

## AddToInsert

Adds a value an insert statement under construction.

### Syntax

**AddToInsert** *sValue*, *bLit*

### Remarks

Insert statements can be constructed by using [CreateInsert](#), **AddToInsert** and [GetInsertStatement](#). [CreateInsert](#) accepts the name of table to insert to and clears out the insert buffer. For each field in the table **AddToInsert** is called to add a value to the insert statement. Each field must be inserted in the same as the target table's layout. Once all the elements have been added, calling [GetInsertStatement](#) returns the completed statement that can now be executed.

The AddToInsert uses the following parts:

*sValue* String expression containing the key for identifying the value.

*bLit* Boolean expression; denotes if *sValue* is to be added as a literal value.  
True if literal (string or date) value; False if non-literal (numeric).

### Example

```
Dim sSQL$
CreateInsert "CustomerTable"
AddToInsert "2938", False           'field 1, numeric
AddToInsert "Joe", True            'field 2, text
AddToInsert "Cool", True          'field 3, text
AddToInsert "06/13/1994", True    'field 4, date
sSQL = GetInsertStatement()         'sSQL = "INSERT INTO CustomerTable values ( 2938,
'Joe', 'Cool', '06/13/1994');"
```

**Module:** [RUFDB.BAS](#) Database functions

## AddToUpdate

Adds a value an update statement under construction.

### Syntax

**AddToUpdate** *sName*, *sValue*, *bLit*

### Remarks

Update statements can be constructed by using [CreateUpdate](#), **AddToUpdate** and [GetUpdateStatement](#). [CreateUpdate](#) accepts the name of table to update to and clears out the update buffer. For each field in the table **AddToUpdate** is called to add a value to the update statement. Once all the elements have been added, calling [GetUpdateStatement](#) returns the completed statement that can now be executed.

The AddToUpdate uses the following parts:

*sName* String expression containing the name of the field to update.

*sValue* String expression containing the key for identifying the value.

*bLit* Boolean expression; denotes if *sValue* is to be added as a literal value.  
True if literal (string or date) value; False if non-literal (numeric).

### Example

```
Dim sSQL$
CreateUpdate "CustomerTable"
AddToUpdate "FirstName", "Joe", True
AddToUpdate "LastName", "Cool", True
AddToUpdate "LastOrderDate", "06/13/1994", True
sSQL = GetUpdateStatement("where CustomerID = 2938" ) 'sSQL = "UPDATE
CustomerTable set FirstName = 'Joe', LastName = 'Cool', LastOrderDate = '06/13/1994' where
CustomerID = 2938;"
```

**Module:** [RUFDB.BAS](#) Database functions

## AddToUpdateV

Adds a variant value an update statement under construction.

### Syntax

**AddToUpdateVsName**, *sValue*, *bLit*

### Remarks

Update statements can be constructed by using [CreateUpdate](#), **AddToUpdateV** and [GetUpdateStatement](#). [CreateUpdate](#) accepts the name of table to update to and clears out the update buffer. For each field in the table **AddToUpdateV** is called to add a value to the update statement. Once all the elements have been added, calling [GetUpdateStatement](#) returns the completed statement that can now be executed.

The AddToUpdateV uses the following parts:

*sName* String expression containing the name of the field to update.

*sValue* String expression containing the key for identifying the value.

*bLit* Boolean expression; denotes if *sValue* is to be added as a literal value.  
True if literal (string or date) value; False if non-literal (numeric).

### Example

```
Dim sSQL$
CreateUpdate "CustomerTable"
AddToUpdate "FirstName", "Joe", True
AddToUpdate "LastName", "Cool", True
AddToUpdateV "LastOrderDate", Format(Now, "mm/dd/yyyy"), True
sSQL = GetUpdateStatement("where CustomerID = 2938" ) 'sSQL = "UPDATE
CustomerTable set FirstName = 'Joe', LastName = 'Cool', LastOrderDate = '06/13/1994' where
CustomerID = 2938;"
```

**Module:** [RUFDB.BAS](#) Database functions

# CompactDB

Compacts an Access ® database

## Syntax

**CompactDB** *sCompDBName*

## Remarks

Use CompactDB to optimize a database file.

*sCompDBName*          String expression, name of database file to compact.

## Example

**CompactDB** "sales.mdb"

**Module:** [RUFDB.BAS](#) Database functions

## CreateInsert

Start construction of a new insert statement.

### Syntax

**CreateInsert** *sTable*

### Remarks

Insert statements can be constructed by using **CreateInsert**, [AddToInsert](#) and [GetInsertStatement](#). **CreateInsert** accepts the name of table to insert to and clears out the insert buffer. For each field in the table [AddToInsert](#) is called to add a value to the insert statement. Each field must be inserted in the same as the target table's layout. Once all the elements have been added, calling [GetInsertStatement](#) returns the completed statement that can now be executed.

*sTable*            String expression containing the name of the table to insert a record into.

### Example

```
Dim sSQL$
CreateInsert "CustomerTable"
AddToInsert "2938", False            'field 1, numeric
AddToInsert "Joe", True            'field 2, text
AddToInsert "Cool", True            'field 3, text
AddToInsert "06/13/1994", True 'field 4, date
sSQL = GetInsertStatement()        'sSQL = "INSERT INTO CustomerTable values ( 2938,
'Joe', 'Cool', '06/13/1994');"
```

**Module:** [RUFDB.BAS](#) Database functions

## CreateUpdate

Start construction of a new insert statement.

### Syntax

**CreateUpdate** *sTable*

### Remarks

Update statements can be constructed by using **CreateUpdate**, [AddToUpdate](#) and [GetUpdateStatement](#). **CreateUpdate** accepts the name of table to insert to and clears out the update buffer. For each field in the table [AddToUpdate](#) is called to add a value to the insert statement. Each field must be inserted in the same as the target table's layout. Once all the elements have been added, calling [GetUpdateStatement](#) returns the completed statement that can now be executed.

*sTable*            String expression containing the name of the table to update.

### Example

```
Dim sSQL$
CreateUpdate "CustomerTable"
AddToUpdate "FirstName", "Joe", True
AddToUpdate "LastName", "Cool", True
AddToUpdateV "LastOrderDate", Format(Now, "mm/dd/yyyy"), True
sSQL = GetUpdateStatement("where CustomerID = 2938" ) 'sSQL = "UPDATE
CustomerTable set FirstName = 'Joe', LastName = 'Cool', LastOrderDate = '06/13/1994' where
CustomerID = 2938;"
```

**Module:** [RUFDB.BAS](#) Database functions

## DatabaseError

Reports a database error.

### Syntax

```
DatabaseError
```

### Remarks

Use Database error to reports error that may take place during a database open procedure.

### Example

```
On Error Goto dbErr
```

```
Set TheDatabase = OpenDatabase(sDatabasePath)  
exit sub
```

dbErr:

```
DatabaseError  
Exit Sub
```

**Module:** [RUFDB.BAS](#) Database functions

## ExecuteInsert

Executes an SQL insert or update statement.

### Syntax

```
ExecuteInsert sBuff
```

### Remarks

Using this procedure will centralize all execute commands into one module. This make it easy to modify your program to use pass through queries without making major modifications to your program.

*sBuff* String expression containing the an update, insert or delete statement.

### Example

```
Dim sBuff$  
sBuff = "Delete from Customer where CustID = 7"  
ExecuteInsert sBuff
```

**Module:** [RUFDB.BAS](#) Database functions

## GetCBOID

Returns the ItemData value for the item currently selected in combo box.

### Syntax

```
IID = GetCBOID (cboCtrl, sField)
```

### Remarks

**GetCBOID** check for a selection in the combo and will display an error message if no selection has been made.

The **GetCBOID** uses the following parts:

*cboCtrl* Combo box control.

*sField* String expression name of the item selected.

### Return Value

*IID* Long expression containing the itemdata value.

### Example

```
sub cmdSave_click
    Dim IID

    IID = GetCBOIDcboMonth, "Month")
exit sub
```

**Module:** [RUFDB.BAS](#) Database functions

## GetID

Returns a new, unique ID number for adding a new record to a keyed table.

### Syntax

```
INewID = GetID(sTableName)
```

### Remarks

Several items need to be in place to use **GetID**. (1) You must have a *one record* system table containing all the next-to-use ID numbers. You can give this table any name you wish and you will tell the RUFDB.BAS module the name of this table through the procedure [SetSystemDB](#). (2) The key field for this table must always be RecNo and its value will be 1. (3) Each field in the system table that contains the ID number will be named after the table that it supports. Thus a next ID number for the "Customer" table will be in the system table in a field called "Customer". When your program needs to add a new customer record, just call GetID with the parameter, "Customer".

The **GetID** uses the following parts:

<i>sTableName</i>	String expression containing the name of the table to contain a new ID number for.
-------------------	--

### Return Value

<i>INewID</i>	Long expression containing the new ID number.
---------------	---

### Example

```
Dim INewCustomerID as Long  
INewCustomerID = GetID("Customer")
```

**Module:** [RUFDB.BAS](#) Database functions

## GetInsertStatement

Return a completed insert statement.

### Syntax

```
sInsertStatement = GetInsertStatement
```

### Remarks

Insert statements can be constructed by using [CreateInsert](#), [AddToInsert](#) and **GetInsertStatement**. [CreateInsert](#) accepts the name of table to insert to and clears out the insert buffer. For each field in the table [AddToInsert](#) is called to add a value to the insert statement. Each field must be inserted in the same as the target table's layout. Once all the elements have been added, calling **GetInsertStatement** returns the completed statement that can now be executed.

### Return Value

*sInsertStatement*      String expression containing an insert statement.

### Example

```
Dim sSQL$
CreateInsert "CustomerTable"
AddToInsert "2938", False            'field 1, numeric
AddToInsert "Joe", True            'field 2, text
AddToInsert "Cool", True            'field 3, text
AddToInsert "06/13/1994", True      'field 4, date
sSQL = GetInsertStatement()        'sSQL = "INSERT INTO CustomerTable values ( 2938,
'Joe', 'Cool', '06/13/1994');"
```

**Module:** [RUFDB.BAS](#) Database functions

## GetLBID

Returns the ItemData value for the item currently selected in list box.

### Syntax

```
IID = GetLBID(IstCtrl, sField)
```

### Remarks

**GetLBID** check for a selection in the list and will display an error message if no selection has been made.

The **GetLBID** uses the following parts:

*IstCtrl* List box control.

*sField* String expression name of the item selected.

### Return Value

*IID* Long expression containing the itemdata value.

### Example

```
sub cmdSave_click  
    Dim IID  
  
    IID = GetLBID(IstMonth, "Month")  
exit sub
```

**Module:** [RUFDB.BAS](#) Database functions

## LoadCombo

Fills a combo box with a values from a table. Values are selected and ordered via a query def.

### Syntax

**LoadCombo** *sQDef, IDefault, cboCtrl, bParam, sSeparator, bClear*

### Remarks

Use **LoadCombo** to fill a combo box with items from a database table.

The **LoadCombo** uses the following parts:

<i>sQDef</i>	String expression contain the name of the query def to use. The first field return by the query def must be numeric; it will be inserted into the itemdata property of the list. Also, the query def can accept one parameter with the alias: "Param"
<i>IDefault</i>	Long expression containing the item data value to highlight (if any). If no list box item should be highlighted <i>IDefault</i> should be -1.
<i>cboCtrl</i>	Combo box control to fill.
<i>bParam</i>	Boolean expression indicating if the <i>IDefault</i> value should be used as a query def parameter. Does not use <i>IDefault</i> as a parameter is false.
<i>sSeparator</i>	One character string expression containg a seprator character to place between fields returned by the query def. If no separator is required, use a null string.
<i>bClear</i>	Boolean expression indicating that the combo box should be cleared before filling with data. Clears the combo box if True.

### Example

**LoadCombo** "GetCustomerTypes", 7, cboTypes, False, "", True

**Module:** [RUFDB.BAS](#) Database functions

## LoadListBox

Fills a list box with a values from a table. Values are selected and ordered via a query def.

### Syntax

**LoadListBox**(*sQDef*, *IDefault*, *IstCtrl*, *bParam*, *sSeparator*)

### Remarks

Use **LoadListBox** to fill a list box with items from a database table.

The **LoadListBox** uses the following parts:

<i>sQDef</i>	String expression contain the name of the query def to use. The first field return by the query def must be numeric; it will be inserted into the itemdata property of the list. Also, the query def can accept one parameter with the alias: "Param"
<i>IDefault</i>	Long expression containing the item data value to highlight (if any). If no list box item should be highlighted <i>IDefault</i> should be -1.
<i>cboCtrl</i>	Combo box control to fill.
<i>bParam</i>	Boolean expression indicating if the <i>IDefault</i> value should be used as a query def parameter. Does not use <i>IDefault</i> as a parameter is false.
<i>sSeparator</i>	One character string expression containg a seprator character to place between fields returned by the query def. If no separator is required, use a null string.

### Example

**LoadListBox** "GetCustomerTypes", -1, cboTypes, False, ""

**Module:** [RUFDB.BAS](#) Database functions

## RemoveQuote

Replaces a single quote mark so that the string can be included in an SQL statement.

### Syntax

```
sNewString = RemoveQuote(sOldString)
```

### Remarks

Replaces the single quote with the backward quote mark (').

*sOldString*      String expression.

### Return Value

*sNewString*      String expression.

### Example

```
Dim sTmp$  
sTmp = dsData("LastName")  
sTmp = RemoveQuote(sTmp)
```

**Module:** [RUFDB.BAS](#) Database functions

## ScanCombo

Searches the itemdata property of a combo box for a matching ID number.

### Syntax

```
nIndex = ScanCombo(IID, cboCtrl)
```

### Remarks

Use **ScanCombo** to locate and highlight a existing entry in a combo box.

The **ScanCombo** uses the following parts:

*IID* Long expression, ID number to search for.

*cboCtrl* Combo box control.

### Return Value

*nIndex* Integer expression. If successful, returns the listindex of the entry.  
If unsuccessful, returns -1.

### Example

```
Dim ICustNo as Long  
Dim nIndex as Integer  
  
ICustNo = ssData("CustomerNo")  
nIndex = ScanCombo(ICustNo, cboCustomers)
```

**Module:** [RUFDB.BAS](#) Database functions

## ScanListBox

Searches the itemdata property of a list box for a matching ID number.

### Syntax

```
nIndex = ScanListBox(IID, IstCtrl)
```

### Remarks

Use **ScanListBox** to locate and highlight a existing entry in a combo box.

The **ScanListBox** uses the following parts:

*IID*                    Long expression, ID number to search for.

*IstCtrl*                List box control.

### Return Value

*nIndex*                Integer expression. If successful, returns the listindex of the entry.  
If unsuccessful, returns -1.

### Example

```
Dim ICustNo as Long  
Dim nIndex as Integer  
  
ICustNo = ssData("CustomerNo")  
nIndex = ScanListBox(ICustNo, cboCustomers)
```

**Module:** [RUFDB.BAS](#) Database functions

## ScanMultiListBox

Searches the itemdata property of a multi-select list box for a matching ID number.

### Syntax

```
nIndex = ScanMultiListBox(IID, IstCtrl)
```

### Remarks

Use **ScanMultiListBox** to locate and highlight a existing entry in a combo box.

The **ScanMultiListBox** uses the following parts:

*IID*                    Long expression, ID number to search for.

*IstCtrl*                List box control.

### Return Value

*nIndex*                Integer expression. If successful, returns the listindex of the entry.  
If unsuccessful, returns -1.

### Example

```
Dim ICustNo as Long  
Dim nIndex as Integer  
  
ICustNo = ssData("CustomerNo")  
nIndex = ScanMultiListBox(ICustNo, cboCustomers)
```

**Module:** [RUFDB.BAS](#) Database functions

## SetSystemDB

Sets the name of the system table, i.e. the table the contains new record ID numbers.

### Syntax

**SetSystemDB** *sTableName*

### Remarks

Call **SetSystemDB** when your program starts up. The system table name will be used by [GetID](#) when retrieving a new ID number .

*sTableName*    String expression containing system table name.

### Example

**SetSystemDB** "PTSystem"

**Module:** [RUFDB.BAS](#) Database functions

## GetUpdateStatement

Return a completed insert statement.

### Syntax

```
sUpdateStatement = GetUpdateStatement(sWhereClause)
```

### Remarks

Update statements can be constructed by using [CreateUpdate](#), [AddToUpdate](#) and **GetUpdateStatement**. [CreateUpdate](#) accepts the name of table to update and clears out the update buffer. For each field in the table [AddToUpdate](#) is called to add a value to the update statement. When calling **GetUpdateStatement** the where clause of the update statement, if any, must be supplied.

*sWhereClause* String expression containing the where clause of the update statement.

### Return Value

*sUpdateStatement* String expression containing an update statement.

### Example

```
Dim sSQL$
CreateUpdate"CustomerTable"
AddToUpdate "FirstName", "Joe", True
AddToUpdate "LastName", "Cool", True
AddToUpdateV "LastOrderDate", Format(Now, "mm/dd/yyyy"), True
sSQL = GetUpdateStatement("where CustomerID = 2938" ) 'sSQL = "UPDATE
CustomerTable set FirstName = 'Joe', LastName = 'Cool', LastOrderDate = '06/13/1994' where
CustomerID = 2938;"
```

**Module:** [RUFDB.BAS](#) Database functions

## **PlaySound**

Plays a wave file. The windows speaker driver must be installed to use this function.

### **Syntax**

```
PlaySound(sWav)
```

### **Remarks**

*sWav* String expression containing the path and name of the wave file.

### **Example**

```
sWav = "c:\wavefile\sound.wav"  
PlaySound(sWav)
```

**Module:** RUFWAVE.BAS

# GetErrorMsg

Determines and displays the current Visual Basic error message.

## Syntax

**GetErrorMsg**(*nErr*)

## Remarks

Use **GetErrorMsg** in the error handling sections of your subroutines and functions.

*nErr* Integer expression containing the error number returned by the Err function.

This subroutine requires a table in your application's database named "Error Message" with the following structure:

Field Name	Type	Length
ErrID	Long	4
ErrMsg	String/Text	254

UNIQUE INDEX: PrimaryKey on (ErrID)

This table should contain all valid Visual Basic error codes and descriptions. A copy of this table can be found in the demo program's database file, RUFDEMO.MDB.

## Example

```
Sub GenericSub()  
    On Error Goto showErr  
    ...  
    Exit Sub  
  
showErr:  
    GetErrorMsg Err  
    Exit Sub  
  
End Sub
```

**Module:** RUFERMSG.BAS

## Auxiliary Table Edit Form

Allows editing of a any table with the following structure:

Field Position	Field Type	Field Description
1	Long	ID Number
2	String	Description/Name/Type Field
3	String	Active/Inactive ('1' or '0')

These global variables are declared in RUFAUXED.BAS

sRUFAuxTable\$	String expression containing name of the table to edit
IRUFAuxEdHelpID&	Long expression containing the help ID
sRUFAuxIDCaption\$	ID caption for RufAuxEdForm
sRUFAuxLable\$	Label caption for RufAuxEdForm
sRUFAuxCaption\$	Form caption for RufAuxEdForm
sRUFAuxQuery\$	Query for loading the RufAuxEdForm list box
sRUFAuxDelCheckQuery\$	Query to check for clearance to delete a record
sRUFAuxDelQuery\$	Query to delete a record
bRUFAuxDelete%	Boolean value to set the enable property of Delete button
sRUFAuxFields(3) As String	Array contain the field names

### Example

```
sRUFAuxTable = "EmpStatus"  
IRUFAuxEdHelpID = Auxiliary_Table_Edit_Form  
sRUFAuxIDCaption = "Status Number"  
sRUFAuxLable = "Employee Status"  
sRUFAuxCaption = "Employee Statues"  
sRUFAuxQuery = "GetStatusRec"  
sRUFAuxDelCheckQuery = "CheckStatusID"  
sRUFAuxDelQuery = "DeleteStatusID"  
bRUFAuxDelete = True  
sRUFAuxLoad = "GetAllStatues"  
sRUFAuxFields(0) = "StatusNo"  
sRUFAuxFields(1) = "StatusType"  
sRUFAuxFields(2) = "Active"  
ModalForm RufAuxEdForm
```

**Modules:** RUFAUXED.FRM, RUFAUXED.BAS

## Database Selection Form

The Database Selection Form allows the user the ability to:

- View the current database path
- Type in a new database path
- Display a common file dialog box for selecting a database to open

The current path and name of the database is stored in the sDBPath variable, which is declared in the [RUFDB.BAS](#) module. When your application starts up you should load the database name and path from an .ini file and place in into sDBPath. Then call a function such as OpenDB (see the RUFDEMO.FRM in RUFDEMO project code). Another global variable used by this form is bRufDbEnd, a Boolean expression. When bRufDbEnd is True, the program will end when the user presses the Cancel button. If bRufDbEnd is False, Database Selection Form will close and the database that is currently open, if any, will remain unchanged.

### Example

```
'get the database & path from the .ini file
sDBPath = GetFromIni("Database", 100)
OpenDB

'Open DB calls the Database Selection Form if an error occurs or sDBPath is blank
...
On Error GoTo dbErr
'stay in a loop until the database is opened
While bDBOK
    bDBOK = False
    bRufDbEnd = True
    ModalForm RUFDBForm
    Hourglasscursor
    Set TheDatabase = OpenDatabase(sDBPath)
    ArrowCursor
Wend

' write the new path
WriteToIni "Database", sDBPath
Exit Sub

dbErr:
    bDBOK = True
    DatabaseError
    Resume Next
...
```

**Module:** RUFDBFORM.FRM

## Login Form

The Login Form provides a handy means to collect the user's name and password for login into your application. These two items are stored in two global variables sUserName and sPassword which are declared in [RUFDB.BAS](#) module. After calling the login form check the bLogin variable. The bLogin variable is True when the user pressed the OK button and you can then look up and compare the user's password with the string in sPassword. When bLogin is False, the user has pressed the Cancel button to abort the login.

### Example

```
ModalForm RufLogin
If bLogin Then
    While Not CheckPassword() And bLogin
        StopUser "Invalid login!"
        ModalForm RufLogin
    If Not bLogin Then
        End
    End If
Wend
Else
    End
End If
```

**Module:** RUFLOGIN.FRM

## About Form

With the About Form you do not have to devote development time to showing your company name or copyright information. All you have to do is declare constants for your application title and version number and set a form variable:

In your applications .BAS file declare the following constants:

```
Global Const TheAppTitle$ = "Reusable Functions Demo"  
Global Const sVer$ = "1.00" 'version number
```

Then in your main form\_load subroutine add this line:

```
Set MainForm = RufMain
```

where *RufMain* is the form the contains your application's icon

Now you can call the About Form in this manner:

```
ModalForm RufAbout
```

**Module:** RUFABOUT.FRM

## HelpSearch

Calls the help content of your applications help file.

### Syntax

```
HelpSearch
```

### Remarks

Call this subroutine to display the WinHelp Search dialog box of your help file.

### Example

```
Sub helpMenu_Click (Index As Integer)
```

```
    Select Case Index
```

```
        Case 1 'contents  
            HelpContents
```

```
        Case 2 'search  
            HelpSearch
```

```
    End Select
```

```
End Sub
```

Module: [RUFHELP.BAS](#)

## State Functions

[CheckState](#) - Validates a two character state abbreviation

[FillStates](#) - Fills a combo box with state abbreviations

[FindState](#) - Finds and select a state abbreviations within a combo box filled by FillStates

## FillStates

FillStates fills a combo box with state abbreviations.

### Syntax

```
FillStates cboCtrl
```

### Remarks

You can simplify the entry of a two character state abbreviation by filling up a combo box with a complete list of states rather than letting the user type it in to a text box. When loading an existing record use the subroutine [FindState](#) to select a particular state from the combo box.

*cboCtrl* Combo box control to fill.

### Example

```
Sub Form_Load ()  
    ...  
    FillStates cboStates  
    ...  
End Sub
```

**Module:** [RUFSTATE.BAS](#)

## FindState

Used in conjunction with [FillStates](#), FindStates locates and selects the two character state abbreviation you supplied in the *sInpState* parameter in the combo box denoted in the *cboCtrl* parameter. This combo box was filled with state abbreviations by calling the [FillStates](#) subroutine.

### Syntax

```
FindState sInpState, cboCtrl
```

### Remarks

*sInpState*      String expression containing the state abbreviation

*cboCtrl*      Combo box control containing a list of state abbreviations

### Example

```
FindState "CA", cboStates
```

**Module:** [RUFSTATE.BAS](#)

## CheckAndSaveCbo

If your application maintains a list of values, you may want to store them in a one field, indexed table. By calling CheckAndSaveCbo from the combo box's Lost Focus event you will update your list whenever the user adds a new value.

### Syntax

**CheckAndSaveCbo** *cboCtrl, sTable, sField, bPad*

### Remarks

CheckAndSaveCbo always check a new value with its current contents. Only new values are save to the database.

The CheckAndSaveCbo uses the following parts:

<i>cboCtrl</i>	Combo box contain the list of values
<i>sTable</i>	String expression containing the name of the table to store the values. Example table: Rates Fields: RateValues      Type: Currency Primary Key: RateValues
<i>sField</i>	String expression containing the field in the table to update
<i>bPad</i>	Boolean expression indication the value should be padded with zeros

### Example

```
Sub cboRates_LostFocus()  
  
    CheckAndSaveCbo cboRates, "Rates", "RateValues", True  
  
End Sub
```

**Module:** [RUFDB.BAS](#) Database functions

## KeyFound

If you need to determine if a key value already exist in the database prior to saving a new record, call KeyFound to query the table for the new key value.

### Syntax

```
bFound = KeyFound (sTable, sField, sValue)
```

### Remarks

The KeyFound uses the following parts:

<i>sTable</i>	String expression containing the name of the table to query
<i>sField</i>	String expression containing the name of the field to query
<i>sValue</i>	String expression containing the value to query

### Return Value

<i>bFound</i>	Boolean expression, True if the key value exist
---------------	---

### Example

```
if KeyFound ("Customer", "LastName", "Smith") then
    InformUser "Key already exist!"
    Exit Sub
else
    SaveTheData
endif
```

**Module:** [RUFDB.BAS](#) Database functions

## **RUF Demos Programs**

Two demo programs/projects are included with the RUF source code. RUFDEMO.MAK and RUFEDEMO.MAK both demonstrate the use of RUF reusable forms and a number of reusable functions. If your computer system does not use MSMAIL then you should use RUFDEMO.MAK which does not use the MSMAPI.VBX. Otherwise you can use RUFEDEMO.MAK that includes code demonstrating the use of RUF's e-mail functions. The projects require Visual Basic 3.0 Professional and you must supply the following .vb files: CMDIALOG.VBX, THREEED.VBX, MSMASKED.VBX, MSMAPI.VBX.

# License Agreement

## Reusable Functions for VB, Version 1.00

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