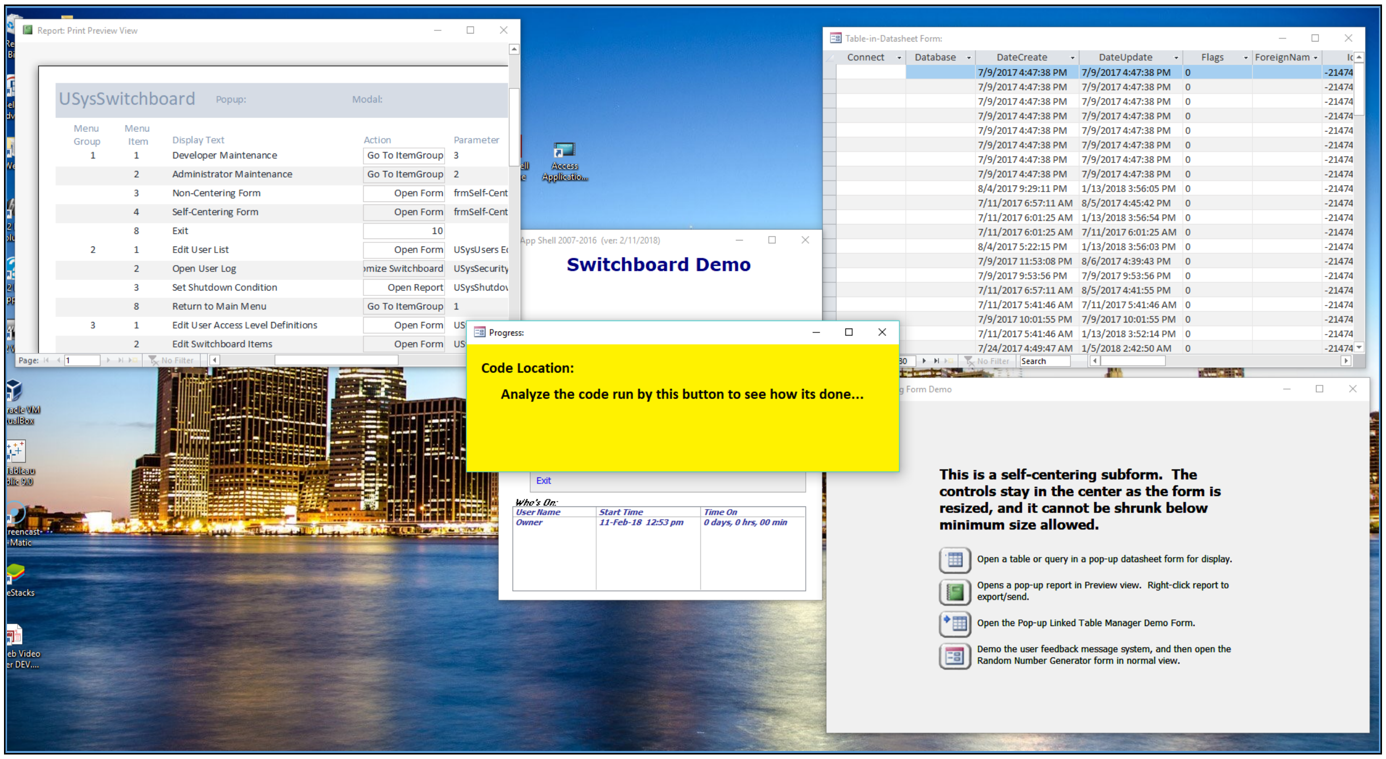
Access Application Shell Details

Thank you for considering the **Access Application Shell** database file (the file). This comes with a license to use this app and its code for your own use. The downloaded .zip file contains the source code for a fully functional Access application shell with several popular security features that Access VBA application developers desire, but find difficult or impossible to figure out how to code.



Report: Print Preview View

USysSwitchboard Popup: Modal:

Menu Group	Menu Item	Display Text	Action	Parameter
1	1	Developer Maintenance	Go To ItemGroup	3
	2	Administrator Maintenance	Go To ItemGroup	2
	3	Non-Centering Form	Open Form	frmSelf-Cent
	4	Self-Centering Form	Open Form	frmSelf-Cent
	8	Exit	10	
2	1	Edit User List	Open Form	USysUsers Ec
	2	Open User Log	›mize Switchboard	USysSecurity
	3	Set Shutdown Condition	Open Report	USysShutdov
	8	Return to Main Menu	Go To ItemGroup	1
3	1	Edit User Access Level Definitions	Open Form	US
	2	Edit Switchboard Items	Open Form	US

Table-in-Datasheet Form:

Connect	Database	DateCreate	DateUpdate	Flags	ForeignNam	Ic
		7/9/2017 4:47:38 PM	7/9/2017 4:47:38 PM	0		-21474
		7/9/2017 4:47:38 PM	7/9/2017 4:47:38 PM	0		-21474
		7/9/2017 4:47:38 PM	7/9/2017 4:47:38 PM	0		-21474
		7/9/2017 4:47:38 PM	7/9/2017 4:47:38 PM	0		-21474
		7/9/2017 4:47:38 PM	7/9/2017 4:47:38 PM	0		-21474
		7/9/2017 4:47:38 PM	7/9/2017 4:47:38 PM	0		-21474
		7/9/2017 4:47:38 PM	7/9/2017 4:47:38 PM	0		-21474
		7/9/2017 4:47:38 PM	7/9/2017 4:47:38 PM	0		-21474
		8/4/2017 9:29:11 PM	1/13/2018 3:56:05 PM	0		-21474
		7/11/2017 6:57:11 AM	8/5/2017 4:45:42 PM	0		-21474
		7/11/2017 6:01:25 AM	1/13/2018 3:56:54 PM	0		-21474
		7/11/2017 6:01:25 AM	7/11/2017 6:01:25 AM	0		-21474
		8/4/2017 5:22:15 PM	1/13/2018 3:56:03 PM	0		-21474
		7/9/2017 11:53:08 PM	8/6/2017 4:39:43 PM	0		-21474
		7/9/2017 9:53:56 PM	7/9/2017 9:53:56 PM	0		-21474
		7/11/2017 6:57:11 AM	8/5/2017 4:41:55 PM	0		-21474
		7/11/2017 5:41:46 AM	7/11/2017 5:41:46 AM	0		-21474
		7/9/2017 10:01:55 PM	7/9/2017 10:01:55 PM	0		-21474
		7/11/2017 5:41:46 AM	1/13/2018 3:52:14 PM	0		-21474
		7/24/2017 4:49:47 AM	1/5/2018 2:42:50 AM	0		-21474

App Shell 2007-2016 (ver: 2/11/2018)

Switchboard Demo

Progress:

Code Location:

Analyze the code run by this button to see how its done...

Who's On:

User Name	Start Time	Time On
Owner	11-Feb-18 12:53 pm	0 days, 0 hrs, 00 min

This is a self-centering subform. The controls stay in the center as the form is resized, and it cannot be shrunk below minimum size allowed.

Open a table or query in a pop-up datasheet form for display.

Opens a pop-up report in Preview view. Right-click report to export/send.

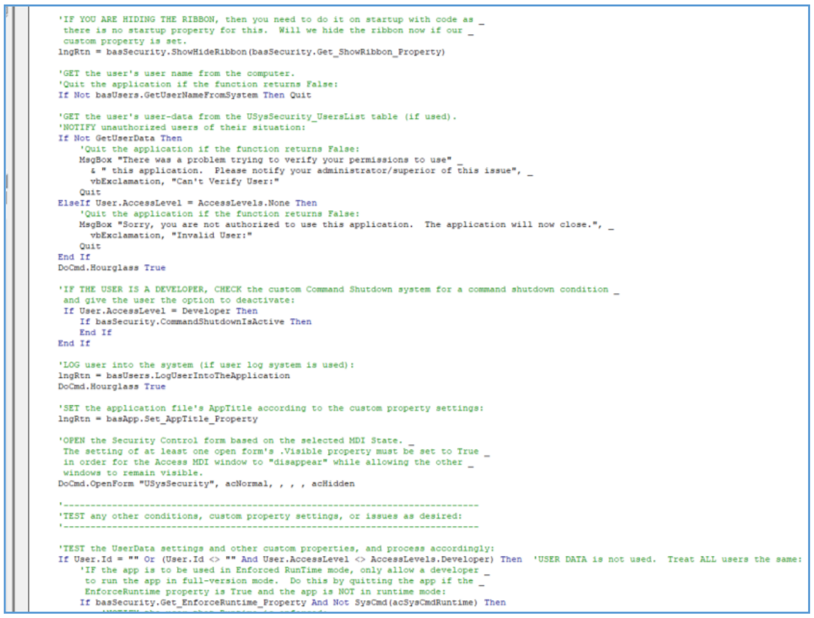
Open the Pop-up Linked Table Manager Demo Form.

Demo the user feedback message system, and then open the Random Number Generator form in normal view.

This product is the 1st in our series of "Show Me How" **self-teaching** Access application files, and the **code is heavily commented** with tips and explanations about what the code is doing and why it is doing it.

You can modify the file as desired and save it as a template in your Access templates directory for use in the creation of new Access VBA applications, or just use bits and pieces of it as needed in your own application.

You can see our YouTube.com video of the **Access Application Shell file in action** here.



```
'IF YOU ARE HIDING THE RIBBON, then you need to do it on startup with code as _
 there is no startup property for this.  Will we hide the ribbon now if our _
 custom property is set.
lngRtn = basSecurity.ShowHideRibbon(basSecurity.Get_ShowRibbon_Property)

'GET the user's user name from the computer.
'Quit the application if the function returns False:
If Not basUsers.GetUserNameFromSystem Then Quit

'GET the user's user-data from the USysSecurity_UsersList table (if used).
'NOTIFY unauthorized users of their situation:
If Not GetUserData Then
    'Quit the application if the function returns False:
    MsgBox "There was a problem trying to verify your permissions to use" _
      & " this application.  Please notify your administrator/superior of this issue", _
      vbExclamation, "Can't Verify User:"
    Quit
ElseIf User.AccessLevel = AccessLevels.None Then
    'Quit the application if the function returns False:
    MsgBox "Sorry, you are not authorized to use this application.  The application will now close.", _
      vbExclamation, "Invalid User:"
    Quit
End If
DoCmd.Hourglass True

'IF THE USER IS A DEVELOPER, CHECK the custom Command Shutdown system for a command shutdown condition _
 and give the user the option to deactivate:
 If User.AccessLevel = Developer Then
    If basSecurity.CommandShutdownIsActive Then
    End If
End If

'LOG user into the system (if user log system is used):
lngRtn = basUsers.LogUserIntoTheApplication
DoCmd.Hourglass True

'SET the application file's AppTitle according to the custom property settings:
lngRtn = basApp.Set_AppTitle_Property

'OPEN the Security Control form based on the selected MDI State. _
 The setting of at least one open form's .Visible property must be set to True _
 in order for the Access MDI window to "disappear" while allowing the other _
 windows to remain visible.
DoCmd.OpenForm "USysSecurity", acNormal, , , , acHidden

'-------------------------------------------------------------------------------
'TEST any other conditions, custom property settings, or issues as desired:
'-------------------------------------------------------------------------------

'TEST the UserData settings and other custom properties, and process accordingly:
If User.Id = "" Or (User.Id <> "" And User.AccessLevel <> AccessLevels.Developer) Then  'USER DATA is not used.  Treat ALL users the same:
    'IF the app is to be used in Enforced RunTime mode, only allow a developer _
     to run the app in full-version mode.  Do this by quitting the app if the _
     EnforceRuntime property is True and the app is NOT in runtime mode:
    If basSecurity.Get_EnforceRuntime_Property And Not SysCmd(acSysCmdRuntime) Then
```

Learn: This file contains basic operating VBA code for learning how to setup Access application components, and since you get the source file, everything is customizable to your liking! You get:

- Window Control (placement and sizing)
- Conditional Compilation (32-bit and 64-bit OS compatibility)
- User Authentication and Permissions Control
- Command/Scheduled Shutdown
- Enforcing the use of Runtime mode with full Access
- Sample switchboard screen
- Getting tables, queries, forms, and reports to work OUTSIDE of the MDI
- "Hiding" the Access MDI without having to make forms modal and able to keep the application icon visible in the task bar tray.
- Preventing the user from switching forms and reports to Design View.
- Internal "Packaging" and Security Module
  - Setting Built-in Properties & Options
  - Creating and Setting Custom Properties & Functions

<u>Window Control</u>: One of the keys to making your Access application look and behave like a finished application is learning how to control the size and placement of your "window" application components like the Access application container, forms, reports, etc. There are numerous application-level functions for getting and setting the size and placement of your windows. You'll see how to give your Access application the look of a VB6 or .Net app by hiding the "Multiple Document Interface" (MDI). The MDI contains the Navigation Pane and Ribbons, and acts as the container for the rest of the database objects, plus it allows for the display of database objects in design mode. The MDI is not actually made invisible, but is reduced to minimum size (not minimized) and hidden behind the applications main form. It is not accessible by the user.

<u>Conditional Compilation</u>: How do you get the same application to work with both 32-bit and 64-bit operating systems? The secret is "conditional compilation", which allows you to make declarations that work under specific conditions without causing compile errors if those specific conditions do not exists. The Win32 API module contains API declarations for both 32-bit and 64-bit OS's. Learning how to use conditional compilation opens up a whole new world of development for the VBA developer!

<u>User Authentication and Control</u>: There is a sample Users table (and sample Access Levels table that works with it) that is used on startup by the Initialize() function. You can code your application to limit access to the app on startup by registering authorized users' login usernames in the table and assigning the appropriate Access Level. The system will retrieve the system username and look it up in the user's table and populate the members of the "Users" user-defined variable. If the username is not found, an alternate password dialog box appears. This app file uses this alternate password to select the appropriate demo user record so you can see the differences available to "user", "admin", and "developer" access levels. Just enter "user", "admin", or "developer" when the yellow password box appears. Feel free to modify this feature as desired.
There is also a "Current Users" display on the switchboard form, and a "User Access Log" function.

<u>Sample Switchboard</u>: When the app opens, you get a switchboard form that acts as the main form. Depending on whether or not you are hiding the MDI, this form opens as a Normal form (MDI visible), or as a dialog (MDI hidden). Use the "Developer" access level to get access to the menu table. Examine the code and play with the menu items in the table to gain full insight into how the switchboard works. The menu items can be tied to a user's permission level so that only those menu items that a user at that level can access. If you want to tie any menu item to a specific user, you can do that too!

<u>Sample Tables, Queries, Forms, and Reports</u>: These are designed to work *without the MDI*, and are displayed with a click of a switchboard menu item or form button to demonstrate how they work. Look at how they are programmed to see what makes them work. You can modify as desired.

- <u>Sample Self-Centering Form</u>: Shows you how to code a subform to keep it centered as a form is resized. Great for tabbed forms!
- <u>Sample Report in Preview View</u>: Just right-click the report to see the various submenu items you can do such as print, export, or send. Play with the app's property and option settings to discover how to control the display of menus and submenus
- <u>Sample Access Table Linking Form</u>: The sample Access linking form included in the file is designed to demonstrate how to build and operate your own VBA process for linking external Access tables. It also shows you the pre-requisites and settings needed to enable VBA code to re-hide the Navigation Pane whenever a table is linked to the file. (For some reason, Access un-hides the Navigation Pane whenever a table is linked.)
- <u>Sample Random Number Generator Form</u>: Just for fun!

<u>Internal "Packaging" and Security Module</u>: The Initialize() function is called by the "autoexec" macro at startup and controls the opening of the hidden Security Control form (USysSecurity). This form manages aspects of the app's security features such as monitoring the Command/Scheduled Shutdown feature, managing the developer "internal packaging" option selections and settings (including custom "user defined" application properties), and ensures that functions that need to be run when the app is closed are executed, even if it is closed with the "X" box in the top-right corner of the MDI.

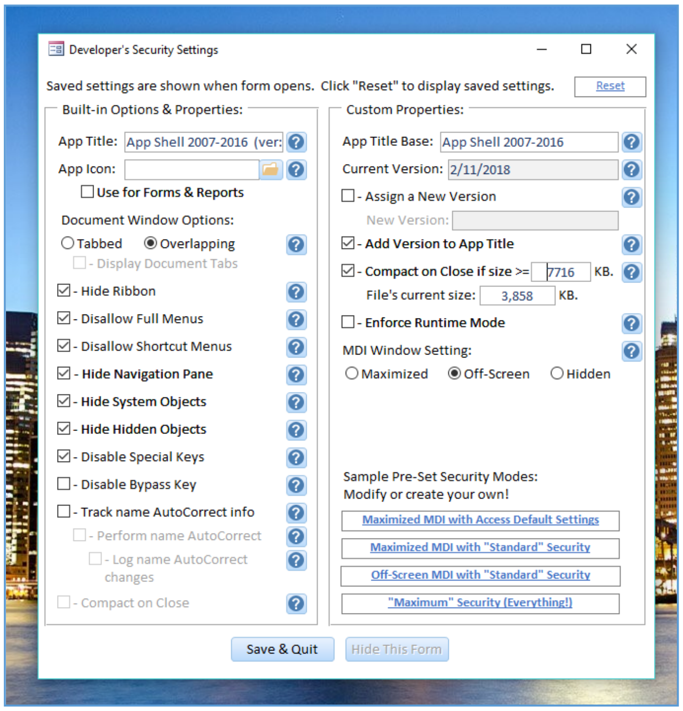
<u>Developer's Security Settings Screen</u>: Easily set built-in and custom properties and options for your application. You can even add your own items!

Built-In Properties & Options:

- App Title
- App Icon
- Use App Icon for Forms & Reports
- Document Window Options:
    - Tabbed documents
    - Overlapping windows
- Hide the Ribbon
- Disallow full menus
- Disallow shortcut menus
- Hide the navigation pane
- Hide system objects
- Hide hidden objects
- Disable special keys
- Disable bypass key
- Track name autocorrect info
- Perform name autocorrect
- Log name autocorrect changes
- Compact on close

Custom Properties & Functions:

- App Title base name
- Assign/display custom version designation
- Compact on Close at a designated file size
- Enforce the use of Access runtime mode operation



Developer's Security Settings

Saved settings are shown when form opens. Click "Reset" to display saved settings.

Built-in Options & Properties:

App Title: App Shell 2007-2016 (ver:

App Icon:

☐ Use for Forms & Reports

Document Window Options:

○ Tabbed [● Overlapping]

☐ - Display Document Tabs

☑ - Hide Ribbon

☑ - Disallow Full Menus

☑ - Disallow Shortcut Menus

☑ - Hide Navigation Pane

☑ - Hide System Objects

☑ - Hide Hidden Objects

☑ - Disable Special Keys

☐ - Disable Bypass Key

☐ - Track name AutoCorrect info

☐ - Perform name AutoCorrect

☐ - Log name AutoCorrect changes

☐ - Compact on Close

Custom Properties:

App Title Base: App Shell 2007-2016

Current Version: 2/11/2018

☐ - Assign a New Version

New Version:

☑ - Add Version to App Title

☑ - Compact on Close if size >= 7716 KB.

File's current size: 3,858 KB.

☐ - Enforce Runtime Mode

MDI Window Setting:

○ Maximized [● Off-Screen] ○ Hidden

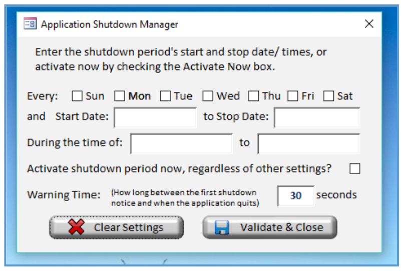
Sample Pre-Set Security Modes:
Modify or create your own!

Reset
Maximized MDI with Access Default Settings
Maximized MDI with "Standard" Security
Off-Screen MDI with "Standard" Security
"Maximum" Security (Everything!)
Save & Quit
Hide This Form

- Show/Hide the Access MDI window
- Custom quick settings of your design

Developer’s Security Settings Screen

<u>Command/Scheduled Shutdown</u>: You can put the “USysSecurity_Shutdown” table external to the file and set the fields in the table to command an immediate shutdown/no-start, or put your shutdown/no-start on a schedule. Code the Security Control form’s Timer Interval and Timer() event to test this table for settings and respond to these settings as desired.


Application Shutdown Manager

Enter the shutdown period's start and stop date/ times, or activate now by checking the Activate Now box.

Every: ☐ Sun ☐ **Mon** ☐ Tue ☐ Wed ☐ Thu ☐ Fri ☐ Sat

and Start Date: to Stop Date:

During the time of: to

Activate shutdown period now, regardless of other settings? ☐

Warning Time: (How long between the first shutdown notice and when the application quits) 30 seconds

Application Shutdown Manager