

## **Anton Software Library/VBX**

### **Skeleton VBX Custom Control Source Code for Microsoft Visual Basic v2 and above**

#### **Version 1.0**

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15th August 1994

#### **Introduction**

The Skeleton VBX custom control source code provides a logical and elegant template from which you can very easily create new VBX custom controls. The Skeleton VBX, a fully implemented custom control in its own right, contains all the standard properties and events (allowing unwanted properties simply to be deleted from the source code), and several custom properties and events that can be used as templates. Model flags, property flags, parent class names (for subclassing), etc. are all listed in the source code allowing you very quickly to be up and running with your new control.

Note that the source code is in C++, though it is largely of the "C++ as a better C" form. However, being in C++, the additional source code you develop to provide the unique implementation of your own VBX custom controls can easily be performed using object oriented techniques (classes, etc.). Also, the source code is in a much more logical format than that provided by Microsoft with the sample controls in the Visual Basic CDK.

Refer to file licence.wri for the terms and conditions associated with use of this VBX custom control source code.

#### **Enquiries and Support**

For all enquiries, and for post-registration support, please contact:

Anton Software Limited  
40 Midfield Way  
Orpington  
Kent, BR5 2QJ  
UK

(Contact name: Tony Scott)

+44 (0) 81 302 4373  
100265,2172  
tonys@anton.demon.co.uk

phone/fax (24 hours)  
CompuServe  
Internet

The source code for a fully implemented custom control, based on the Skeleton format, is available upon request. Please apply for details.

#### **Registration**

Full support will be provided to registered users of the Skeleton VBX custom control source code, as will details of new Anton Software Library/VBX custom controls and Anton Software Library/OLE controls.

To register:

Via CompuServe

Simply go to the CompuServe Shareware Registration Forum (GO SWREG). The cost of the control (per-user licence) is \$50.00 (50 US dollars) - this will be billed automatically to your CompuServe account. After you register, full support will be available via CompuServe and Internet e-mail.

The registration ID for the Skeleton Custom Control is 3260.

#### Direct

Alternatively, payment of \$50 (50 US dollars) or £37.50 (37.50 pounds sterling) can be made direct to the above address (per-user licence). (For UK residents, please send a cheque for £37.50. This is inclusive of 17.5% VAT, and a VAT receipt will be supplied to you.) After you register, full support will be available via CompuServe and Internet e-mail.

File order.wri contains the Skeleton VBX custom control source code order form.

#### **Usage**

Create a directory and extract the files from the skeleton.zip file into it. The main files within the skeleton.zip file are as follows:

licence.wri	Licence agreement
order.wri	Order form
readme.wri	This file
skeleton.mak	Visual C++ project (make) file
skeleton.cpp	Main module - control procedure and message handling functions
skelini.cpp	Control initialisation (and termination) module
skeldat.cpp	Control global data module
skelabt.cpp	About Box module
skeleton.hpp	Main control header file
skelexp.hpp	Exported functions header file
skelext.hpp	External declarations header file
resource.h	App Studio created resource information header file
skeleton.def	Control definitions file
skeleton.rc	Resource file (App Studio compatible)
skeleton.rcv	Version information
skelcd.bmp	VB toolbox bitmap
skelcu.bmp	VB toolbox bitmap
skeleu.bmp	VB toolbox bitmap
skelmu.bmp	VB toolbox bitmap
skeleton.vbx	Compiled VBX file
skeltest.mak	VB test application project file
skeleton.frm	VB test form
skeltest.exe	Compiled test executable

The code may be compiled and worked on immediately (using Visual C++), and it is always useful to keep a copy available for quick experiments.

To develop a new VBX custom control based on the Skeleton source code, perform the following steps:

Create a new directory and copy all the skeleton files into it.  
Rename the skeleton.\* files according to the name of your new VBX file.  
Rename the remaining skel\*.\* files using an abbreviated form of your new VBX file name.  
Within the source code (and .DEF files, etc.), perform the following global replacements:

SKELETON to your control's name in upper case  
SKEL to an abbreviated form of your control's name in upper case  
skeleton to your control's name in lower case  
skel to an abbreviated form of your control's name in lower case  
Skeleton to your control's proper name (no spaces)

Enter your name, the date and your company name in the appropriate places within the source code (mainly module headers). You must not remove any acknowledgements to Anton Software Limited, including from the About Box and within the version information.

Create a new project file, or modify the renamed existing one from within VC++, adding the .CPP, .DEF and .RC files. The source code is memory model independent, though large model provides the most flexibility (always choose SS != DS). Remember to link with VBAPI.LIB.

If you require any further support functions, create appropriately named new .CPP modules (using your control's abbreviated name) for them.

Within the code, the main customisations required are flagged with "TO DO" markers. The remaining changes and additions required should be self explanatory. Nevertheless, become totally familiar with the Microsoft CDK documentation, which should be seen as the definitive guide to VBX development. The sample code within the CDK (CIRC, etc.) can be useful for reference purposes, but you should find the Skeleton format much easier to work with.

## **Revision History**

### 28th November 1992

The Skeleton VBX source code format was conceived and development commenced.

### 1992 - 1994

The source code was used for ongoing consultancy work and bespoke VBX development within the UK. Minor modifications were made to the source code as required, but the basic format remains largely unchanged from November 1992.

### 15th April 1994

The About Box module (skelabt.cpp) and associated functionality was added.

### 15th August 1994

The source code was modified for general release as shareware, and was given the nominal external version number of 1.