



# OnGuard Help

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# Title page 1

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# OnGuard Help

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# Foreword

This is just another title page  
placed between table of contents  
and topics

# 1 Overview

OnGuard is a library of components, classes, and routines that allow you to protect your applications after they are released to the public. Using OnGuard, you could release an application that is partially functional so that users can try it. When a user is ready to purchase the fully functional application, you supply a release code to unlock all of the features (or the subset that the user is purchasing). You can make your application readily available to a large number of potential users, but still protect your investment. Application protection is accomplished through the use of *keys* to lock or restrict one or more features of an application and several types of *release codes* (or access codes) to enable them.

## 1.1 Contents

### Contents

OnGuard is a library of components, classes, and routines that allow you to protect your applications after they are released to the public. Using OnGuard, you could release an application that is partially functional so that users can try it. When a user is ready to purchase the fully functional application, you supply a release code to unlock all of the features (or the subset that the user is purchasing). You can make your application readily available to a large number of potential users, but still protect your investment. Application protection is accomplished through the use of *keys* to lock or restrict one or more features of an application and several types of *release codes* (or access codes) to enable them.

#### Keys and Release Codes

[TOaMakeKeys Component](#)

[TOaMakeCodes Component](#)

#### Release Code Components

[TOaCodeBase Class](#)

[TOaDateCode Component](#)

[TOaDaysCode Component](#)

[TOaNetCode Component](#)

[TOaRegistrationCode Component](#)

[TOaSerialNumberCode Component](#)

[TOaSpecialCode Component](#)

[TOaUsageCode Component](#)

#### Detecting Changes to an EXE

[TOaProtectExe Component](#)

#### Single Instance Applications

[OaFirst Uni](#)

Low-Level Routines

[API Reference](#)

License

[Mozilla Public License 1.1 \(MPL 1.1\)](#)

## 1.2 History

Version 1.13 is the original source released by TurboPower.

Delphi 7 support was added in this release.

This release was ported to CLX.

The CLX port was then ported to FPC/Lazarus.

SongBeamer added packages for Delphi 2009 and Delphi 2010 and made some changes for Unicode support.

Version 1.14 was created by Roman Kassebaum.

This version only had packages for Delphi 2009 and Delphi 2010 with the new version number.

There were newsgroup postings saying it did not compile where the SongBeamer release did.

Version 1.15 was created by Andrew Haines.

Packages for Delphi XE through XE5 were added.

Source version numbers were updated.

A merge of the 1.13, 1.14, SongBeamer, CLX, and FPC/Lazarus ports was started.

Unit tests for a number of the API routines were created using Delphi XE5 and DUnit.

Unit test values were pulled from Delphi 6 running version 1.13.

The original HLP file was imported into a Help and Manual project.

The H&M project was exported to CHM and HxS files as well as HTML.

The help has been expanded to include the various types, files, and routines.

Screen shots have been added to the help file.

The SourceForge feature request 5 has been implemented.

The SourceForge bug reports 6, 7, 8, and 10 have been implemented.

As of 2015-Dec-07:

- support for Delphi XE8 has been added.
- support for Delphi 10 Seattle has been added.
- support for 64-bit has been started.
- ognetwrk.pas has been split to separate the visual/non-visual portions (see ognetwrkutil.pas for non-visual parts)
- The W1050 warnings in ogutil.pas have been "corrected".
- The W1058 warnings in ogutil.pas have been "corrected".
- new folder "bin" has been added to contain the compiler output files.
- DPK files for Delphi 3-7, 2005-2010, XE-XE4 have been updated for new files and structure (untested though)



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## 2 Classes

`TOgCodeBase`

### 2.1 TOgCodeBase Class

The TOgCodeBase class is the ancestor class for the other "release code" components. It implements several properties and methods that are common for all of its descendants.

## 3 Components

	Delphi							FPC			Kylix
	Win 16	Win 32	Win64	MacOS	iOS	Android	Linux	UNIX	Win32	Win64	Linux
TOgMakeKeys	Yes	Yes	Yes				n/a				
TOgMakeCodes	Yes	Yes	Yes				n/a				
TOgDateCode	Yes	Yes	Yes				n/a				
TOgDaysCode	Yes	Yes	Yes				n/a				
TOgNetCode	Yes	Yes	Yes				n/a				
TOgRegistrationCode	Yes	Yes	Yes				n/a				
TOgSerialNumberCode	Yes	Yes	Yes				n/a				
TOgSpecialCode	Yes	Yes	Yes				n/a				
TOgUsageCode	Yes	Yes	Yes				n/a				
TOgNetCode	Yes	Yes	Yes				n/a				
TOgProtectEXE	Yes	Yes	Yes	No	No	No	n/a				

### 3.1 TOgDateCode Component

TOgDateCode implements a Start/End Date release code. Use this release code when you need to limit the amount of time that an application (or specific features of an application) can be used. Both a start date and an end date are encoded into this release code. This allows you to detect a change to the computer's clock that results in a date outside of the date range or an attempt to alter the registry or INI file entry.

### 3.2 TOgDaysCode Component

TOgDaysCode implements a Number of Days Used release code. This release code limits the number of days that an application (or specific features) can be used. The application can be run an unlimited number of times each day.

### 3.3 TOgMakeCodes Component

TOgMakeCodes is a non-visual component that displays a dialog when its Execute method is called. The dialog allows you to create several types of release codes. Each release code consists of 8 bytes and is viewed and entered as 16 hexadecimal digits.

### 3.4 TOgMakeKeys Component

TOgMakeKeys is a non-visual component that displays a dialog when its Execute method is called. The dialog allows you to create and maintain keys. Keys are used to encode and decode the release codes that the other OnGuard components use.

### 3.5 TOgNetCode Component

TOgNetCode implements a Network Metering release code. This release code limits the number of concurrent instances of an application that are allowed to run on a network. It does this through the use of a network release code and a Network Access File. The use of a network release code is no different than other release codes, but there are additional maintenance issues related to the network file that your application must handle.

### 3.6 TOgProtectExe Component

The TOgProtectExe component allows you to detect changes to your EXE file. The size of the EXE file and a 32-bit CRC (Cyclical Redundancy Check) value are recorded in the EXE file and checked each time the application is run.

### 3.7 TOgRegistrationCode Component

TOgRegistrationCode implements a Simple Registration release code. This release code ties the user's name, company name, or some other textual data to the registration code.

### 3.8 TOgSerialNumberCode Component

TOgSerialNumberCode implements a Serial Number Registration release code. This release code ties a serial number to the release code. This release code is very similar to the Simple Registration release code. The only difference is in the data that is used as part of the code generation process. The Serial Number Registration release code uses a number instead of a text string.

### 3.9 TOgSpecialCode Component




TOgSpecialCode implements a Special Registration release code. This release code is based on a special value (a long integer) that can be used to indicate anything you like.

### 3.10 TOgUsageCode Component







TOgUsageCode implements a Usage Count release code. This release code limits the number of times an application can be executed.

## 4 Low-Level Routines


### Generate Key Routines

-  GenerateRandomKeyPrim
-  GenerateMD5KeyPrim
-  GenerateTMDKeyPrim

### Modifier Routines

-  ApplyModifierToKeyPrim
-  CreateMachineID
-  GenerateDateModifierPrim
-  GenerateMachineModifierPrim
-  GenerateStringModifierPrim
-  GenerateUniqueModifierPrim









### Hash Routines

-  StringHashEl








### Mixing Routines

-  MixBlock






### Utility Routines

-  ExpandDate
-  ShrinkDate
-  BufferToHex
-  BufferToHexBytes
-  HexStringIsZero
-  HexToBuffer
-  GetCodeType
-  GetExpirationDate



### Date Code



-  GetDateCodeValue
-  InitDateCode
-  IsDateCodeExpired
-  IsDateCodeValid
-  InitDateCodeEx
-  GetDateCodeStar
-  GetDateCodeEnc

### Days Code





-  DecDaysCode
-  GetDaysCodeValue
-  InitDaysCode
-  IsDaysCodeExpired
-  IsDaysCodeValid

### Registration Code





-  InitRegCode
-  IsRegCodeExpired

-  IsReqCodeValid
-  IsRegCodeRegisteredTo






### Serial Number Code

-  GetSerialNumberCodeValue
-  InitSerialNumberCode
-  IsSerialNumberCodeExpired
-  IsSerialNumberCodeValid











### Special Code

-  GetSpecialCodeValue
-  InitSpecialCode
-  IsSpecialCodeExpired
-  IsSpecialCodeValid








### Usage Code

-  DecUsageCode
-  GetUsageCodeValue
-  InitUsageCode
-  IsUsageCodeExpired
-  IsUsageCodeValid



### Network Code

-  IsAppOnNetwork
-  CheckNetAccessFile
-  CreateNetAccessFile
-  CreateNetAccessFileEx
-  DecodeNAFCountCode
-  GetNetAccessFileInfo
-  EncodeNAFCountCode
-  LockNetAccessFile
-  ResetNetAccessFile
-  UnlockNetAccessFile

### Protect EXE

-  IsExeTampered
-  ProtectExe
-  UnprotectExe
-  IsFileTampered
-  UpdateChecksum
-  FileCRC32
-  UpdateCRC32

### Single Instance

-  IsFirstInstance
-  ActivateFirstInstance

## 5 Types

Enter topic text here.

```

{$IFDEF DELPHI22UP}                                {AH.02}
ogLongInt = FixedInt;                               {AH.02}
{$ELSE}                                              {AH.02}
ogLongInt = LongInt;                                {AH.02}
{$ENDIF}                                             {AH.02}
PogLongInt = ^ogLongInt;                            {AH.02}

{$IFDEF Win16}
DWord    = LongInt;
PDWord   = ^DWord;
TGUID    = GUID; {Delphi 1.0 defines it as GUID - Delphi 2.0 defines it as TGUID}
AnsiChar = Char;
PAnsiChar = PChar;
{$ENDIF}

{$IFDEF MACOS}
DWord    = Cardinal;
PDWord   = ^DWord;
{$ENDIF}

{$IFDEF FPC}
PByte     = ^Byte;
PByteArray = ^TByteArray;
TByteArray = array [0..MaxStructSize div SizeOf(Byte) - 1] of Byte;
PLongInt  = ^LongInt;
{$ENDIF}
PLongIntArray = ^TLongIntArray;
TLongIntArray = array [0..MaxStructSize div SizeOf(LongInt) - 1] of LongInt;
PogLongIntArray = ^TogLongIntArray; {AH.02}
TogLongIntArray = array [0..MaxStructSize div SizeOf(ogLongInt) - 1] of ogLongInt; {AH.02}

```

```

TLongIntRec
PCode
TCode
TCodeType
TKey
TKeyType
TTMDContext
TMD5Context
TMD5Digest
T128Bit
T256Bit
TEsMachineInfoSet
TCodeStatus

```

```

TNetAccess
TNetAccessInfo
TGetFileNameEvent

```

```
PSignatureRec = ^TSignatureRec;
TSignatureRec = packed record
  Sig1  : DWord;           {!!!.07}
  Sig2  : DWord;           {!!!.07}
  Sig3  : DWord;           {!!!.07}
  Offset : DWord;          {!!!.07}
  Size  : DWord;           {!!!.07}
  CRC   : DWord;           {!!!.07}
  Sig4  : DWord;           {!!!.07}
  Sig5  : DWord;           {!!!.07}
  Sig6  : DWord;           {!!!.07}
end;

TExeStatus = (
  exeSuccess,           {no error}
  exeSizeError,         {the file size has changed}
  exeIntegrityError,    {CRC does not match}
  exeNotStamped,        {the exe has not been stamped}
  exeAccessDenied       {share violation}           {!!!.05}
);

TCheckedExeEvent = procedure(Sender : TObject; Status : TExeStatus) of object;
```



## 6 Files

Enter topic text here.

### 6.1 OgConst

Enter topic text here.

### 6.2 OgUtil

Enter topic text here.

## Types

```
{$IFDEF DELPHI22UP}                                {AH.02}
ogLongInt = FixedInt;                               {AH.02}
{$ELSE}                                              {AH.02}
ogLongInt = LongInt;                                {AH.02}
{$ENDIF}                                            {AH.02}
PogLongInt = ^ogLongInt;                            {AH.02}

{$IFDEF Win16}
DWord    = LongInt;
PDWord   = ^DWord;
TGUID    = GUID; {Delphi 1.0 defines it as GUID - Delphi 2.0 defines it as TGUID}
AnsiChar = Char;
PAnsiChar = PChar;
{$ENDIF}

{$IFDEF MACOS}
DWord    = Cardinal;
PDWord   = ^DWord;
{$ENDIF}

{$IFDEF FPC}
PByte     = ^Byte;
PByteArray = ^TByteArray;
TByteArray = array [0..MaxStructSize div SizeOf(Byte) - 1] of Byte;
PLongInt  = ^LongInt;
{$ENDIF}
PLongIntArray = ^TLongIntArray;
TLongIntArray = array [0..MaxStructSize div SizeOf(LongInt) - 1] of LongInt;
PogLongIntArray = ^TogLongIntArray; {AH.02}
TogLongIntArray = array [0..MaxStructSize div SizeOf(ogLongInt) - 1] of ogLongInt; {AH.02}
```

```
TLongIntRec
PCode
TCode
TCodeType
TKey
TKeyType
TTMDContext
TMD5Context
```

[TMD5Diges](#)  
[T128Bi](#)  
[T256Bi](#)  
[TEsMachineInfoSe](#)  
[TCodeStatus](#)

## Constants

```

DefAutoCheck      = True;
DefAutoDecrease   = True;
DefCheckSize      = True;
DefStoreCode      = False;
DefStoreModifier  = False;
DefStoreRegString = False;

```

```
OgVersionStr      = '1.15';
```

{magic values}

```

DaysCheckCode     = Word($649B);
DateCheckCode     = Word($A4CB);
NetCheckCode      = Word($9341);
RegCheckCode      = Word($D9F6);
SerialCheckCode   = Word($3C69);
UsageCheckCode    = Word($F3D5);
SpecialCheckCode  = Word($9C5B);

```

```
{$IFDEF Win32}
```

```
MaxStructSize = 1024 * 2000000; {2G}
```

```
{$ELSE}
```

```
MaxStructSize = 1024 * 64 - 1; {64K}
```

```
{$ENDIF}
```

```
DefCodeType      = ctDate;
```

```
DefKeyType       = ktRandom;
```

[BaseDate](#)

## Exceptions

```
EOnGuardException = class(Exception);
```

```
EOnGuardBadDateException = class(EOnGuardException);
```

```
{!! 15}
```

```
EOnGuardClockIssueException = class(EOnGuardException);
```

## Variables



```
StrRes : TOgStringResource;
```

## Routines







### Generate Key Routines




[GenerateRandomKeyPrim](#)

 GenerateMD5KeyPrim  
 GenerateTMDKeyPrim

## Modifier Routines

 ApplyModifierToKeyPrim  
 CreateMachineID  
 GenerateDateModifierPrim  
 GenerateMachineModifierPrim  
 GenerateStringModifierPrim  
 GenerateUniqueModifierPrim



















## Hash Routines

 StringHashEl








## Mixing Routines

 MixBlock



## Utility Routines




 ExpandDate  
 ShrinkDate  
 BufferToHex  
 BufferToHexBytes  
 HexStringIsZero  
 HexToBuffer  
 GetCodeType  
 GetExpirationDate  
 OgFormatDate  
 Max  
 Min  
 XorMem  
  
 MyHashElf  
 GetDiskSerialNumber  
 GetDriveType  
 HiWord  
 CoCreateGuid  
 timeGetTime

## Date Code





 GetDateCodeValue  
 InitDateCode  
 IsDateCodeExpired  
 IsDateCodeValid  
 GetDateCodeStart  
 GetDateCodeEnd  
 InitDateCodeEx

## Days Code





 DecDaysCode  
 GetDaysCodeValue

-  InitDaysCode
-  IsDaysCodeExpired
-  IsDaysCodeValid





## Registration Code

-  InitRegCode
-  IsRegCodeExpired
-  IsRegCodeValid
-  IsRegCodeRegisteredTo






## Serial Number Code

-  GetSerialNumberCodeValue
-  InitSerialNumberCode
-  IsSerialNumberCodeExpired
-  IsSerialNumberCodeValid

## Special Code

-  GetSpecialCodeValue
-  InitSpecialCode
-  IsSpecialCodeExpired
-  IsSpecialCodeValid

## Usage Code

-  DecUsageCode
-  GetUsageCodeValue
-  InitUsageCode
-  IsUsageCodeExpired
-  IsUsageCodeValid

```
{IFDEF Win16}
function GetDiskSerialNumber(Drive : AnsiChar) : LongInt;
{$ENDIF}
{$IFDEF LINUX}
function GetDiskSerialNumber(Drive : AnsiChar) : LongInt;
function MyHashElf(const Buf; BufSize : LongInt) : LongInt;
{$ENDIF}
function Max(A, B : LongInt): LongInt;
function Min(A, B : LongInt) : LongInt;
procedure XorMem(var Mem1; const Mem2; Count : Cardinal);
function OgFormatDate(Value : TDateTime) : string;      {!!..09}
```

```
{IFDEF KYLIX}
function GetDriveType(drive:Integer): Integer;
function HiWord(l: DWORD):Word;
function CoCreateGuid(out guid: TGUID): HRESULT;
function timeGetTime: DWORD;
{$ENDIF}
{$IFDEF FPC}
{$IFDEF LINUX}
function GetDriveType(drive:Integer): Integer;
```

```
function HiWord(l: DWORD):Word;  
function CoCreateGuid(out guid: TGUID): HRESULT;  
function timeGetTime: Cardinal;  
{ $ENDIF }  
{ $IFDEF FREEBSD }  
function GetDriveType(drive: Integer): Integer;  
function HiWord(l: DWORD):Word;  
function CoCreateGuid(out guid: TGUID): HRESULT;  
function timeGetTime: Cardinal;  
{ $ENDIF }  
{ $ENDIF }
```

## 6.3 OnGuard

The OnGuard unit provides all of the code components except for TOgNetCode.

### Classes

TOgCodeBase

### Components

TOgMakeKeys

TOgMakeCodes

TOgDateCode

TOgDaysCode

TOgNetCode

TOgRegistrationCode

TOgSerialNumberCode

TOgSpecialCode

TOgUsageCode

## 6.4 OgFirst

The OgFirst unit provides routines that allow you to detect when a second instance of an application is being executed and to force the previous instance of the application to become the active application.

ActivateFirstInstance

IsFirstInstance

## 6.5 OgNetWrk

The OgNetWrk unit provides the network access component.

### Types

TGetFileNameEvent

## Components

[TOaNetCode](#)

### 6.6 OgNetWrkUtil

The OgNetWrkUtil unit provides the network access classes, types and API routines.

#### Types

TNetAccess

TNetAccessInfo

#### Routines

[CheckNetAccessFile](#)

[CreateNetAccessFile](#)

[CreateNetAccessFileEx](#)

[DecodeNAFCountCode](#)

[EncodeNAFCountCode](#)

[GetNetAccessFileInfo](#)

[IsAppOnNetwork](#)

[LockNetAccessFile](#)

[ResetNetAccessFile](#)

[UnlockNetAccessFile](#)

### 6.7 OgFile

This unit contain file related routines formerly located in ogutil.

[GetFileSize](#)

[LockFile](#)

[UnlockFile](#)

[FlushFileBuffers](#)

### 6.8 OgProExe

Enter topic text here.

#### Types

TCheckedExeEvent = procedure(Sender : TObject; Status : TExeStatus) of object;

#### Classes

[TOaProtectExe](#)

## 6.9 OgProExeUtil

Enter topic text here.

### Types

```
TExeStatus = (  
    exeSuccess,           {no error}  
    exeSizeError,         {the file size has changed}  
    exeIntegrityError,    {CRC does not match}  
    exeNotStamped,        {the exe has not been stamped}  
    exeAccessDenied       {share violation}  
    {!!..05}  
);
```

### Routines

```
IsExeTamperec  
ProtectExe  
UnprotectExe  
IsFileTamperec  
UpdateChecksum  
FileCRC32  
UpdateCRC32
```

## 6.10 OnGuard1

This unit contains the TKeyGenerateFrm class.

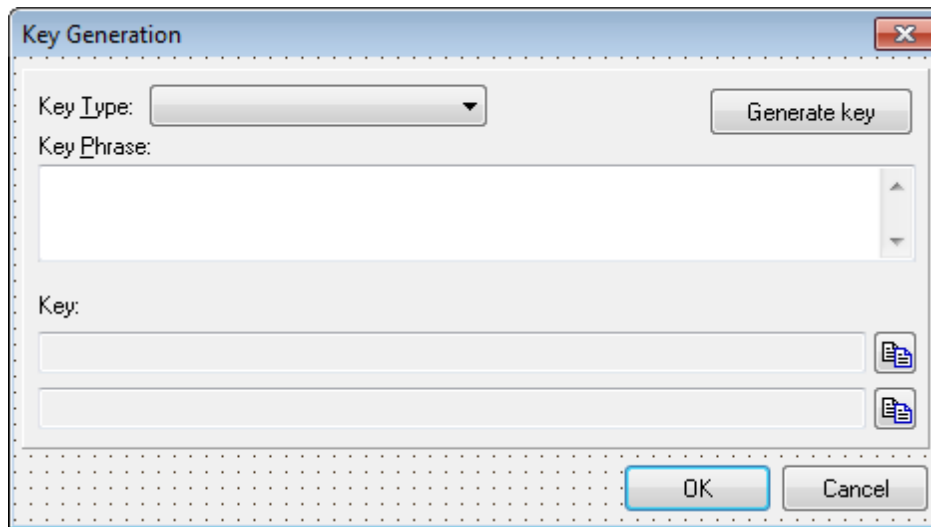
The Key Type combo box contains the options:

- Random
- Standard Text
- Case-sensitive Text

These values correspond to TKeyType.

VCL = OnGuard1.dfm  
CLX = QOnGuard1.xfm  
Lazarus = Icl\QOnGuard1


### VCL

A screenshot of a 'Key Generation' dialog box. It has a title bar with a close button. Inside, there is a 'Key Type:' dropdown menu, a 'Generate key' button, a 'Key Phrase:' text area, and a 'Key:' section with two text boxes and copy icons. At the bottom are 'OK' and 'Cancel' buttons.

## 6.11 OnGuard2

This unit contains the TCodeGenerateFrm class.

The tabs across the top represent the code type and must match the sequence in [TCodeType](#).

Clicking on the  button will open the key maintenance form in [OnGuard3](#).

VCL = OnGuard2.dfm  
CLX = QOnGuard2.xfm  
Lazarus = Icl\QOnGuard2

### VCL



**Code Generation**

Date Days Reg S/N Usage Network Special

Start date:  End date:


Key used to encode

☒ No modifier ☐ Machine modifier ☐ Unique modifier


☐ Date modifier

☐ String Modifier

Modifier:

Key:  


Generate Code



Date Days Reg S/N Usage Network Special

Day count:  Expires:

Date Days Reg S/N Usage Network Special

String:  

Expires:

Date Days Reg S/N Usage Network Special

Serial Number:  Expires:

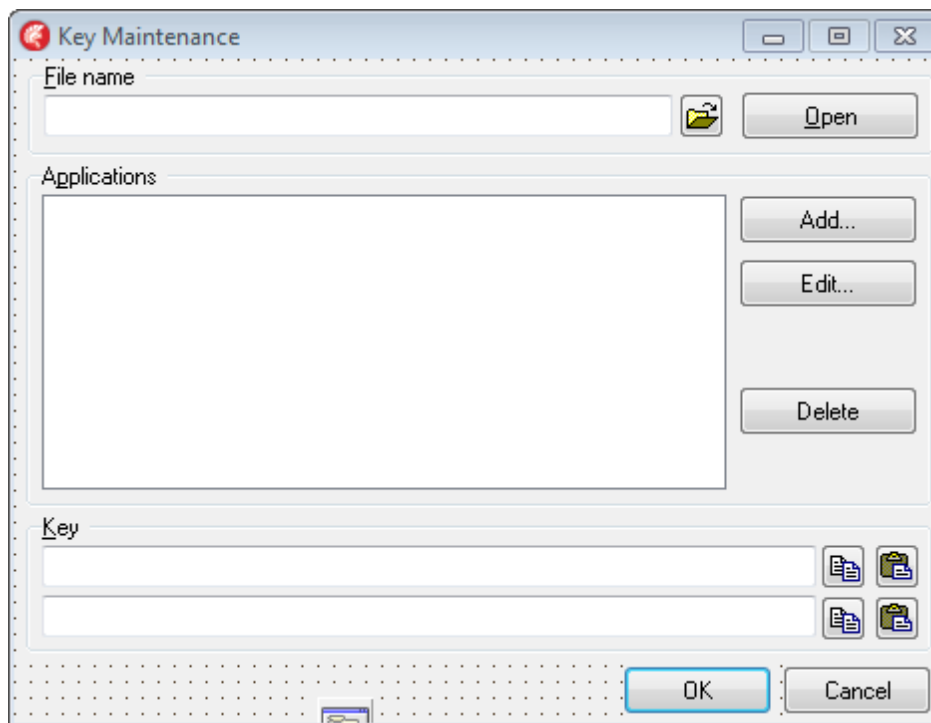
Date	Days	Reg	S/N	Usage	Network	Special
<p>Usage count: <input type="text" value="0"/> Expires: <input type="text"/></p>						
<p>Access Slots: <input type="text" value="2"/></p>						
Date	Days	Reg	S/N	Usage	Network	Special
<p>Special data: <input type="text" value="0"/> Expires: <input type="text"/></p>						

## 6.12 OnGuard3

This unit contains the TKeyMaintFrm class.


VCL = OnGuard3.dfm  
CLX = QOnGuard3.xfm  
Lazarus = Icl\QOnGuard3

**VCL**



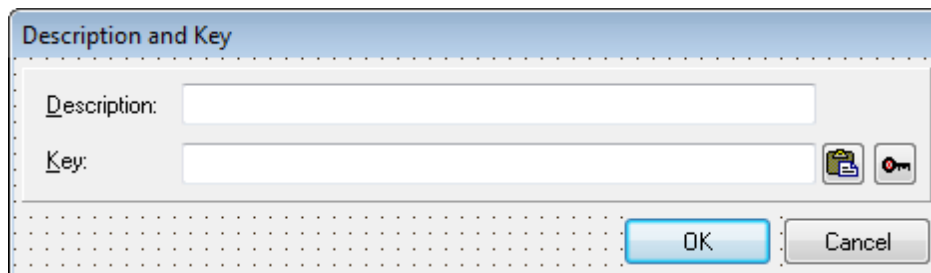
## 6.13 OnGuard4

This unit contains the TEditProductFrm class.

Clicking on the  button will open the key generation form in [OnGuard1](#).

VCL = OnGuard4.dfm  
CLX = QOnGuard4.xfm  
Lazarus = Icl\QOnGuard4

### VCL



## 6.14 OnGuard5

The OnGuard5 unit contains the class TOgCodeProperty which is used as a Property Editor in the IDE.

The TOgCodeProperty.Edit method uses the TCodeGenerateFrm class found in [OnGuard2](#).

CLX = QOnGuard5

Lazarus = Icl\QOnGuard5

## 6.15 OnGuard6

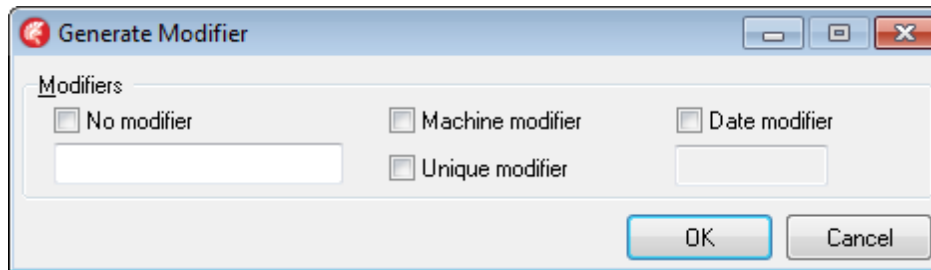
The OnGuard6 unit contains the TModifierFrm class and the TOgModifierProperty class which is used as a Property Editor in the IDE.

VCL = OnGuard6.dfm

CLX = QOnGuard6.xfm

Lazarus = Icl\QOnGuard6

### VCL



## 6.16 OnGuard7

The OnGuard7 unit contains the class TOgFileNameProperty which is used as a Property Editor in the IDE.

CLX = QOnGuard7

Lazarus = Icl\QOnGuard7

## 6.17 OgAbout0

This unit provides the About dialog.

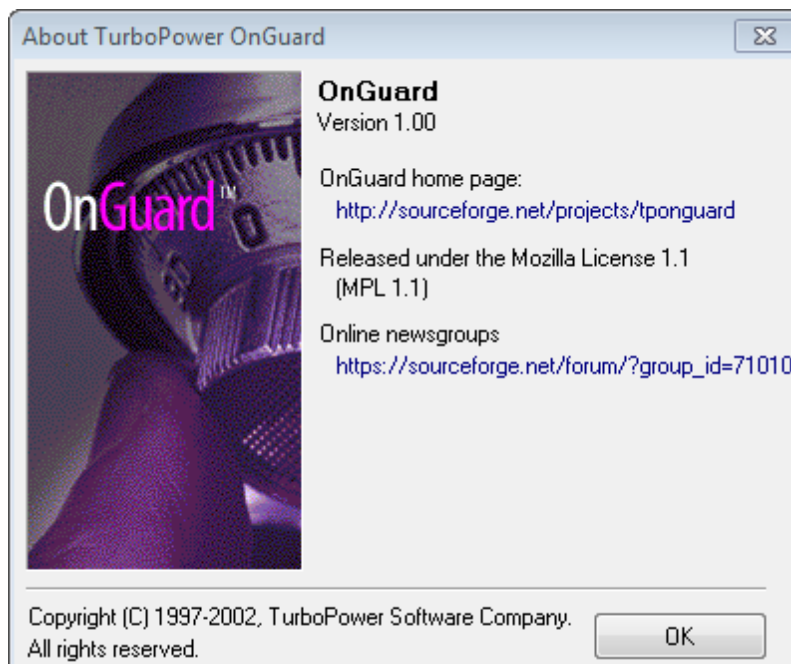
It also provides the TOgAboutProperty which is used as a Property Editor in the IDE.

VCL = OgAbout0.dfm

CLX = QOgAbout0.xfm

Lazarus = Icl\QOgAbout0

### VCL



## 6.18 OgReg

The OgReg unit contains the TOgCodeGenEditor class which is used as a Property Editor in the IDE. This unit also exposes the Register procedure used to register the components in Delphi.

The register procedure adds a component editor to TOgCodeBase with two actions: Generate Code and Generate Key.

TOgCodeBase is also given property editors:

- Code = TOgCodeProperty
- Modifier = TOgModifierProperty
- About = TOgAboutProperty

TOgProtectExe, TOgMakeCodes, and TOgMakeKeys are given the TOgAboutProperty property editor.

TOgMakeCodes and TOgMakeKeys are given the TOgFileNameProperty property editor on the KeyFileName property.

## 6.19 OgCodeSign

A set of API functions to validate a file with a digital certificate. These functions are only supported on Windows.

### Routines

IsExeCodeSigned  
IsExeSignedByName  
IsFileCodeSigned

**IsFileSignedByName**

The routines were implemented based on snippets from stackoverflow by Craig Peterson and T Ondrej.

## 6.20 OgStamp

This file provides the type definitions and the constants required to provide the ability to stamp a file. It is intended to be used in EXE, DLL, and BPL files.

You can use the OgProExe unit to stamp and validate these files.

### Types

```
PSignatureRec = ^TSignatureRec;
TSignatureRec = packed record
    Sig1  : DWord;           {!!..07}
    Sig2  : DWord;           {!!..07}
    Sig3  : DWord;           {!!..07}
    Offset : DWord;          {!!..07}
    Size  : DWord;           {!!..07}
    CRC   : DWord;           {!!..07}
    Sig4  : DWord;           {!!..07}
    Sig5  : DWord;           {!!..07}
    Sig6  : DWord;           {!!..07}
end;
```

### Constants

{signature = '!~~@CRC32@~~' used before and after}

```
StoredSignature : TSignatureRec = (
    Sig1:$407E7E21; Sig2:$33435243; Sig3:$7E7E4032;
    Offset:1; Size:2; CRC:3;
    Sig4:$407E7E21; Sig5:$33435243; Sig6:$7E7E4032);
```

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TOgProtectExe Component 19

TOgRegistrationCode Component 19

TOgSerialNumberCode Component 19

TOgSpecialCode Component 19

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