



BSec Security Templates

Bo's Template Tamers

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1 Introduction to BSec Security

BSec or Easy Security Templates.

Easiest Security to add, setup, manage, and offers excellent security.

Supports C4 -C6x, C7, ABC and Clarion Chains.
Multi-DLL support.

BSec is for Security Logon and restricting User access in your apps and is not for Registration Purposes.

BSec uses Encrypted tps files and has 'developer set built in defaults' in case the user deletes the security file.

BSec will automatically create a new Security file and use the developer defaults in creating the file.

If the end users delete the User file, they will lose access to the application, and need to contact the developer for assistance, or you may provide a default file.

Supports up to 255 Security levels. (Using a global Byte)

BSec is rich in features.

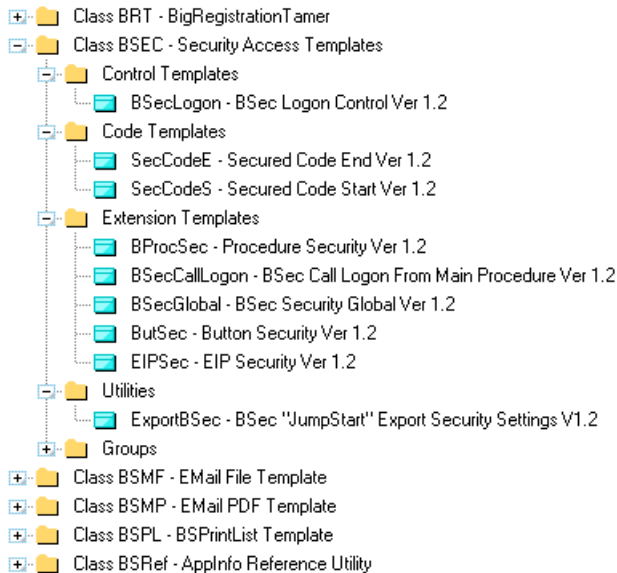
1. Procedure level security to restrict access.
2. EIP security for C4--C6x ABC, and C6x Legacy.
3. Global template populates all procedures, and allows a default global setting for all procedures.
4. Hide or disable individual controls based on security settings for each control.
5. Default global setting can be individually overridden in each procedure and security template.
6. Global defines for the access violation message and icon.
7. Individual Insert, Change, Delete security settings for forms.
8. EIP security for add, change, delete.
9. Multi-extension to add for as many buttons as needed to add security.
10. Secured code start and end code templates to secure code in embeds. Only run if User passes security clearance. No warning message.
11. JumpStart utility to add all security items and default settings to a Security file.
12. TXD provided for the Security file. Rename, change Owner Name, etc to taste. Must follow file format.
13. TXD provided for sample Users file, and example users file provided for testing. You can use your own Users file in the app. Just needs 3 basic fields and a key.
14. Logical labeling using Procedure Name, EIP, action name, and/or button name for the procedures and controls in question.
15. Additional fields for category and description in the security file. Defaults to procedure Category and Description. Alter as necessary for user simplicity
16. Uses your Logon window, or txa's to import. Control template provided to add Logon

functionality when using your window.

17. Logon window is standard window procedure, so can be altered to match your look and feel.

18. Frame template to call logon procedure.

1.1 Overview



BSec or Easy Security Templates.

Easiest Security to add, setup, manage, and offers excellent security.

Supports C4 -C6x, C7x, ABC and Clarion Chains.
Multi-DLL support.

BSec is for Security Logon and restricting User access in your apps and is not for Registration Purposes.

Supports up to 255 Security levels. (Using a global Byte)

Uses BSec Security Class to retrieve the security settings.

1.2 QuickStart

Quick Start Guide

1. Import Users.txd and Security.txd into your app dictionary. See [includes](#).
2. Add [BSec Global](#) template to app, or all apps in multi-dll. Set default global security level, change default message, multi-dll settings as needed.
3. Fill in Security File and Owner Name settings in Main Frame [BProcSec](#) procedure template. This is required by the BSec Classes.

4. Copy the provided sample [users file](#) to the app directory. See [includes](#).
5. Import a Logon procedure txa provided. (ABC or Legacy) See [includes](#).
6. Add the [BSecCallLogon](#) extension to the main frame and select the name of the Logon procedure.
7. Wizard Generate a browse on the [Security file](#). Add EIP and BSec's [EIPSec](#) extension if desired. Do not allow changing the SItem field.
8. Wizard Generate a browse on the [Users file](#). Add EIP and BSec's [EIPSec](#) extension if desired.
9. Peruse your app and change default security settings to what you would like to see.
10. Add any control level security you desire, hiding or disabling individual controls.
11. Add any additional [EIPSec](#), [ButSec](#) Button Security extensions, or [secure any code](#) as you feel compelled.<g>
12. Run the [ExportBSec Jumpstart Utility](#) to build the default Security file.
13. Compile and run your now secured application.(s)

1.3 License

License & Copyright Notice

BSec Security Manager

BSec Security Manager is copyright 2010 by Comsoft7.
None of the files included in this package may be distributed individually or in an altered state without first contacting the author.

BSec is provided without warrantee or guarantee, implied or otherwise. Use at your own risk. Using BSec implies acceptance of this agreement, along with recognition of copyright. Comsoft7 cannot be held liable for any damages or business losses, which may occur as a direct or indirect result of using BSec.

```
#! BSec Security Manager is the intellectual property of Bo Schmitz -  
#! AKA Comsoft7 Copyright 1985-2010  
#!  
#! The author has developed all template code independently,  
#!  
#! Licensing is based on Softvelocity's - one developer can run  
#! BSec on more than one machine as long as they are the  
#! main user and it is the same copy of Clarion. The developer can  
#! run BSec on more than 1 version of Clarion as long as  
#! they are upgrades. Therefore, one license required per each  
#! Softvelocity license. You can transfer the license to another  
#! developer by first consulting the author.  
#! Inquire the author for site license's or multiple licenses.  
#!  
#! Because BSec is all code, please observe the copyright.  
#! I made the decision to not BlackBox BSec, and you may  
#! modify it to suit your purposes. Please advise the Author of
```

#! any major changes, your needs, and perhaps these changes or needs
#! can be included as features.
#!
#! BSec must not be copied, or modified, in part or whole
#! (except for Personal use), or distributed to another person in
#! any way, without first Contacting the author.
#!
#! The author may be contacted by email at Bo@comsoft7.com
#!
#! No warranty of any kind! Use at your own risk.
#!

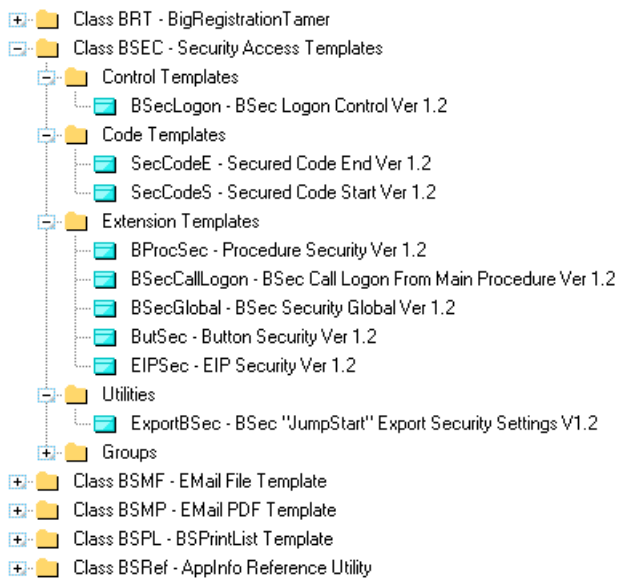
1.4 Whats New

September 24, 2010 BSec Ver 1.2 released.

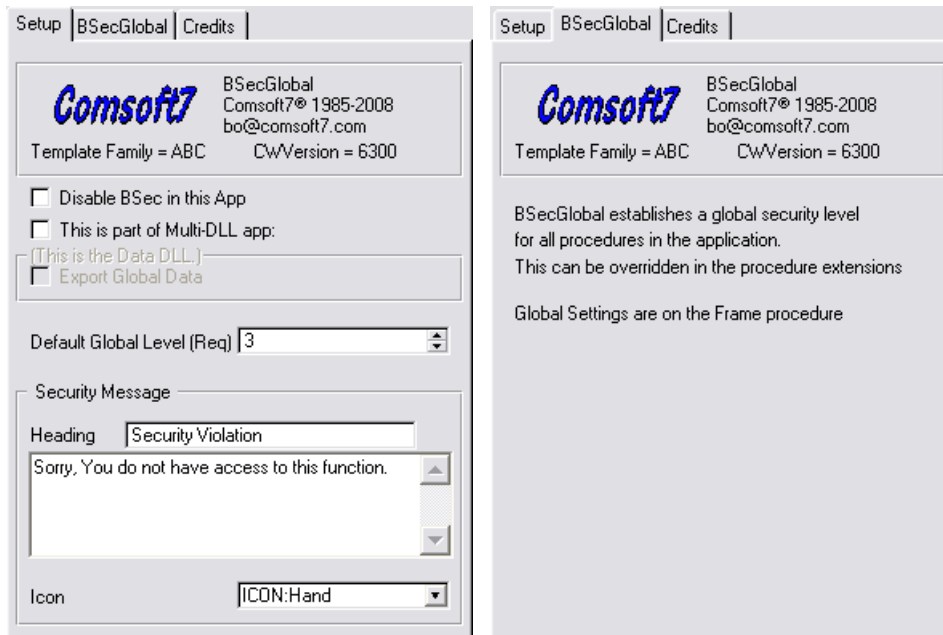
added individual control security in procedures.

September 24, 2008 BSec Ver 1.0 released.

2 BSec Templates



2.1 BSecGlobal



The 'Disable BSec in this App' checkbox is provided for testing if you wrongly think BSec Security Templates are causing any problems. It will disable all code generation in the app while developing and for testing purposes.

If you are using BSec on Multi-dll apps, select the checkbox 'This is part of Multi-DLL app:' This will enable the 'Export Global Data ' checkbox, which you should select for the Data Dll to export BSec's classes and variables.

Set the Default Global Security Level to what you feel is the most common one you will use for most procedures, buttons, etc. All templates added after this point will default to this number. Each template can be individually overridden with its own default level within those templates.

The Security Message box controls the Security Message generated by BSec whenever a security violation occurs.

Do Not Use Linefeeds in the message area.

Salt to taste.

2.2 BProcSec

On the Main Frame or First Procedure

The Frame or First procedure is used to set the Global Security File and Owners Name for the BSec classes. It automatically disables procedure security so that the logon procedure can be called and menu is enabled.

Global Settings | Procedure Settings | Credits

Comsoft7 BProcSec(BSEC) = 1
Comsoft7® 1985-2008
bo@comsoft7.com

Template Family = ABC CWVersion = 6300

These setting are global to the Security Templates and are only available on the Frame or First Procedure

Security File ...

File Owner Name

Global Settings | Procedure Settings | Credits

Comsoft7 BProcSec(BSEC) = 1
Comsoft7® 1985-2008
bo@comsoft7.com

Template Family = ABC CWVersion = 6300

Disable Security Checking for this Procedure

Security Level Required

On the rest of the Procedures

Disable security checking in this procedure if desired, and set any default Security levels required to access the procedure.

Procedure Settings | Control Settings | Credits

Comsoft7 BProcSec(BSEC) = 7
Comsoft7® 1985-2010
bo@comsoft7.com

Template Family = ABC CWVersion = 6300

Disable Security Checking for this Procedure

Security Level Required

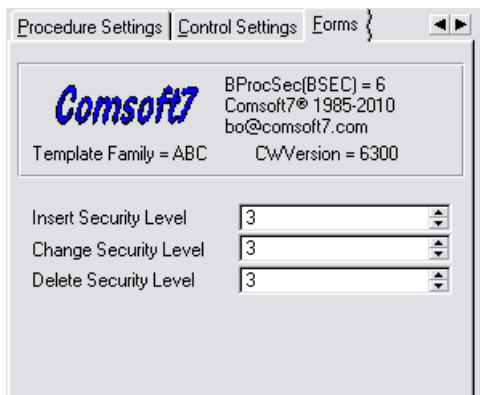
Individual Control security.

Add any addition control level security by adding the controls and Hiding or disabling them accordingly.

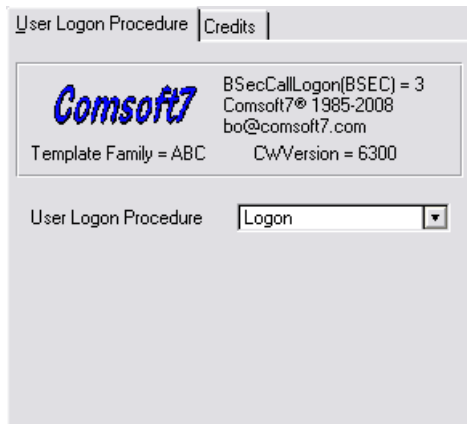


On 'Forms' an Extra Tab appears for Security.

In addition to the procedure security, additional security is added depending on the form's action request. Set the individual default levels as required. Settings respond to the 'Disable Security Checking for this Procedure'.



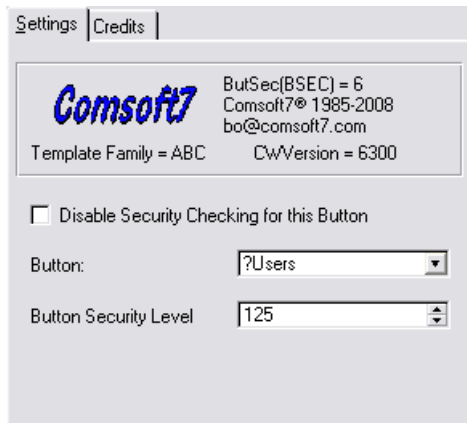
2.3 BSecCallLogon



On the Main Frame or First Procedure.

The BSecCallLogon template is restricted to the Main Frame or First procedure in the EXE of a standalone or Multi-dll app. Security must be disabled on the Procedure using this extension. The templates do this automatically. Select the Logon Procedure from the drop down to generate the code to call the logon procedure in the procedure.

2.4 ButSec



The ButSec extension template is used for setting additional security in procedures at a security level different than the procedure itself. This is required to stop routine code calls, running embedded code, etc that requires tighter security. It has its own switch to disable, but also follows the Procedure's 'Disable Security Checking for this Procedure' switch. It does not follow the Procedure switch when installed on the Main Frame or First procedure as the procedure security is disabled to call the logon.

Select the button you want to add security too, and the default security level required.

2.5 EIPSec

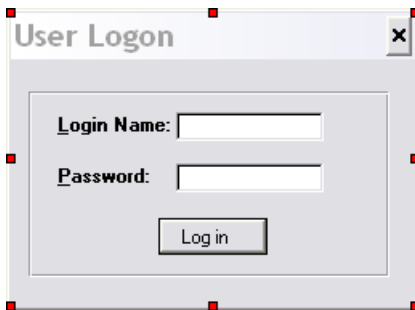
EIPSec for ABC control. Select the browse to protect, and set your security Levels for actions.

The screenshot shows a configuration window with a 'Settings' tab selected. At the top left is the 'Comsoft7' logo. To its right, the text reads: 'EIPSec(BSEC) = 10', 'Comsoft7® 1985-2008', and 'bo@comsoft7.com'. Below this, it says 'Template Family = ABC' and 'CWVersion = 6300'. A checkbox labeled 'Disable Security Checking for this Browse' is unchecked. Below the checkbox are four dropdown menus: 'ABC Browse Control' is set to '?Browse:1', 'Legacy Change Button' is empty, 'Insert Security Level' is set to '3', 'Change Security Level' is set to '4', and 'Delete Security Level' is set to '5'.

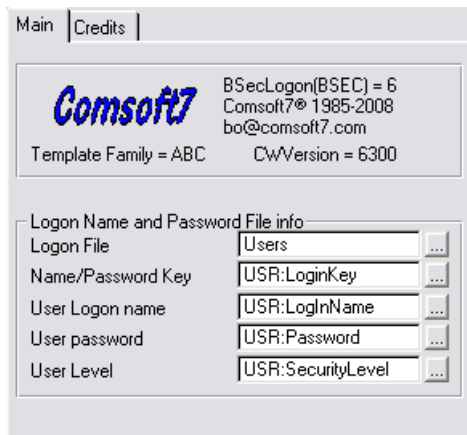
EIPSec for CLARION(Legacy) control. Select the browse to protect, the legacy Change button assigned to the browse, and set your security Levels for actions. The change button is required so the EIPSec can generate the code into the proper routine to protect the EIP Browse.

The screenshot shows a configuration window with a 'Settings' tab selected. At the top left is the 'Comsoft7' logo. To its right, the text reads: 'EIPSec(BSEC) = 9', 'Comsoft7® 1985-2008', and 'bo@comsoft7.com'. Below this, it says 'Template Family = CLARION' and 'CWVersion = 6300'. A checkbox labeled 'Disable Security Checking for this Browse' is unchecked. Below the checkbox are four dropdown menus: 'ABC Browse Control' is set to '?Browse:1', 'Legacy Change Button' is set to '?Change:4', 'Insert Security Level' is set to '3', 'Change Security Level' is set to '3', and 'Delete Security Level' is set to '3'.

2.6 BSecLogon Control

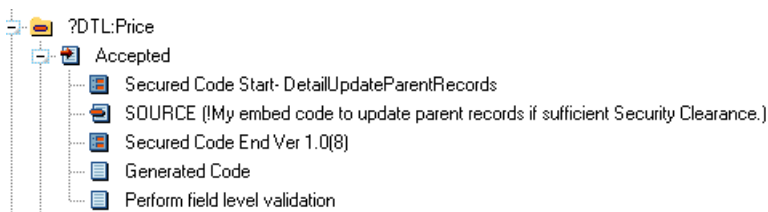


BSecLogon Control template dropped onto generic window. Matches import txa procedures in [Includes](#).



Enter the details for your Logon File, Key, and Fields to use for the Logon, and you are done. See [Users File](#) for more details.

2.7 Securing Embed Code



Adding [SecCodeS](#) (Start) and [SecCodeE](#) (End) adds a wrap for the code you want to secure. They do not generate any messages, but only run the code if the security is met. **They must be added in pairs** to complete the wrapper, or the compiler will complain.<g> The Secure Code templates do not respond to the procedure 'Disable Security Checking for this Procedure' switch, but contain their own 'Write Code' Switches. They will respond to the

Global 'Disable BSec in this App' switch.

```

OF ?DTL:QuantityOrdered
! [Priority 2500]

! Generated Code
OF ?DTL:Price
! [Priority 1100]

! ScodeStart *****
IF BSecC.GetSecLevel('DetailUpdateParentRecords') = 0 THEN BSecC.AddSecLevel('Detail
IF BSecC.GetSecLevel('DetailUpdateParentRecords') > GLO:SecLevel
ELSE
! [Priority 4499]
! My embed code to update parent records if sufficient Security Clearance.
! Do more code here.
! ScodeEND *****
END
! [Priority 4700]

! Generated Code
OF ?DTL:TaxRate
! [Priority 2500]

```

2.7.1 SecCodeS Code

Settings | Credits

Comsoft7 SecCodeS(BSEC) = 9
Comsoft7® 1985-2008
bo@comsoft7.com

Template Family = ABC CWVersion = 6300

Use ! for variables

Item Name:

Category:

Description:

Security Level:

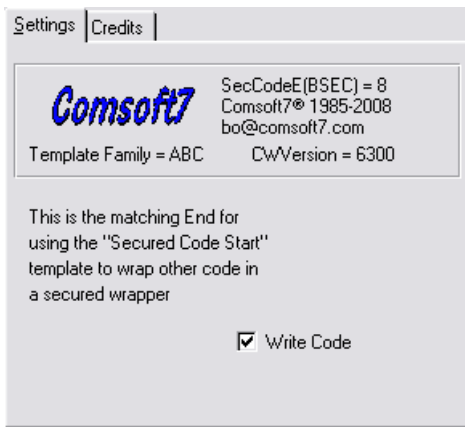
Write Code

You can use a variable in the first three prompts if required, by preceding with a '!'

Give the Item a unique Meaningful name. This will be used for the lookup in the Security file. It is possible to use another name from the Security file, if you want this code to track and stay on the same security level as another item. Filling in this prompt is required. Category and Description may be helpful in the Security file, but are not required. Set Security level to the desired requirement.

You must also insert a [SecCodeE](#) 'secure code end' after the code you wish to protect. SecCodeS wraps the code with an IF statement and needs the other code to provide the END.

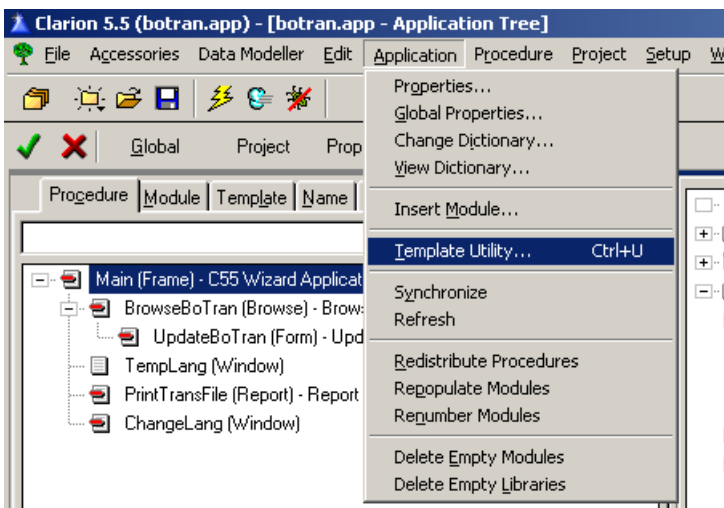
2.7.2 SecCodeE Code



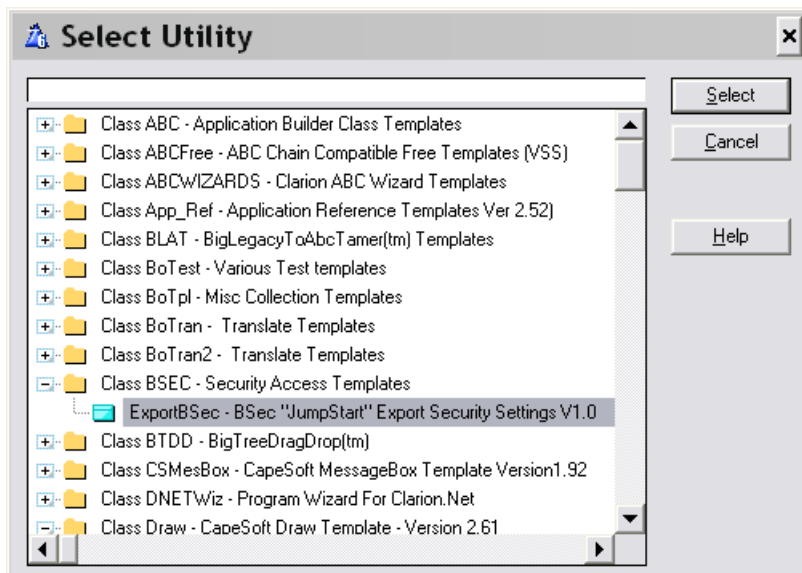
The SecCodeE template adds an END to the embed code you are protecting with the [SecCodes](#) code template. It is needed to end the If statement protecting the code.

2.8 ExportBSec Jumpstart Utility

In the IDE menu, select Application\Template Utility... or press Ctrl+U



Select ExportBSec -- BSec "JumpStart" Export Security Settings



Select the name of your Security File, and add the File Owner Name (Password)



BSec Jumpstart will add all the security settings to the Security file for the app.

Run BSec Jumpstart on all apps in a multi-dll application.

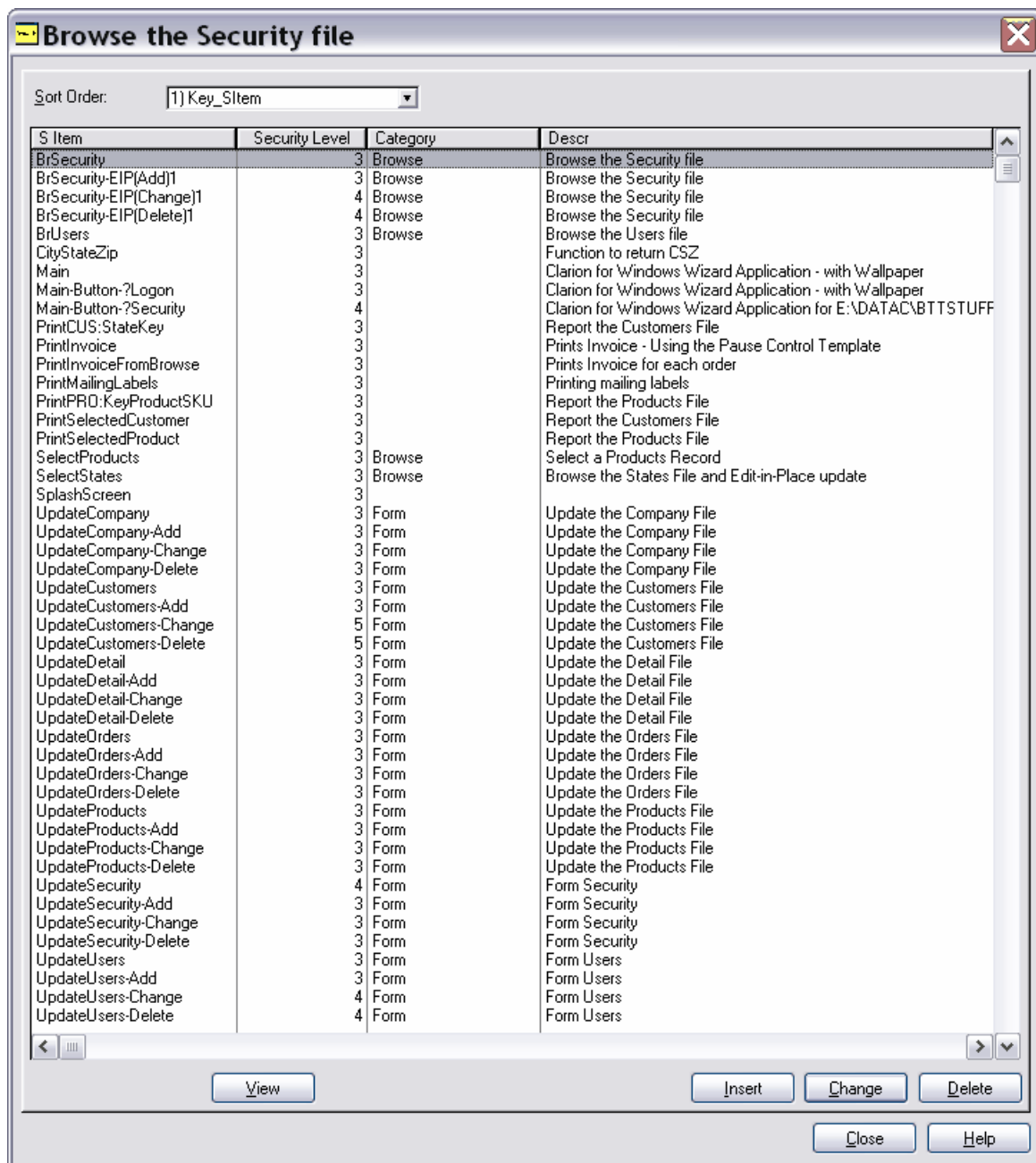
BSec Jumpstart will not overwrite any existing records (destroy) changing user modified Security Levels.

It writes the record using the default settings in the template establishing the security code.

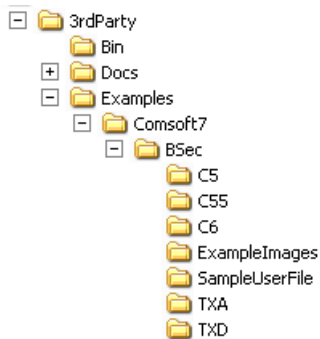
It uses the name of the procedure and the category and description of the procedure.

It adds additional info to define it as a unique record depending on its task.

Run it as often as needed whenever changing the app to pick up new security additions.



3 Includes



Example files are included under their respective version number directories. The example images are used by all the examples, and can be copied into the appropriate directory. ABC and Legacy examples are provided for each version.

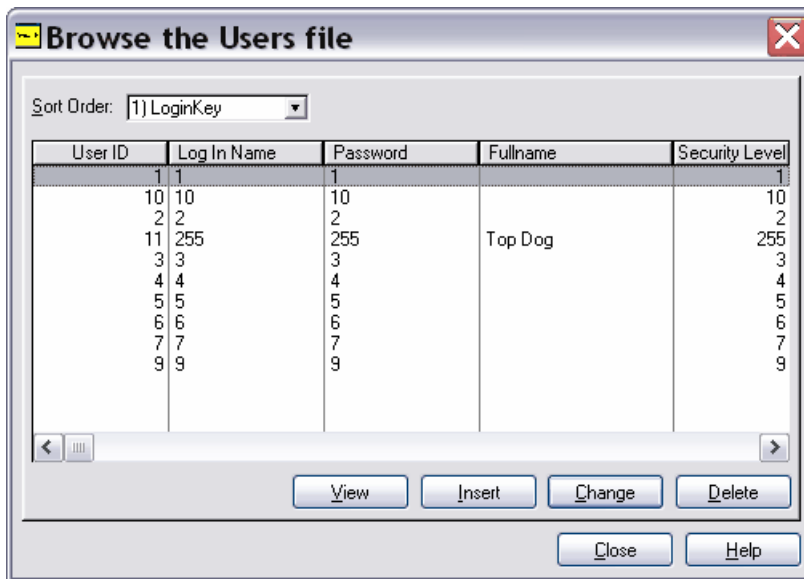
A sample [users file](#) is provided for testing purposes. It is contained in the SampleUsersFile directory.

TXA directory contains the legacy and ABC logon procedures if you chose to import them into your application. You can roll your own using a window and the [BSecLogon](#) control.

TXD directory contains the [Security file](#) and example [users file](#) txd's for import into your dictionary.

4 Users File

A sample users file is included with BSec. See [includes](#). BSec is designed to **use your Users or Employee file** as long as the **minimal file requirements** are met. Users File requires a Login Name(String), Password(String), and Security Level(Byte) Fields. A unique Key is required on the LogInName field. It is a good idea to have the file encrypted with an Owners Name. You can enforce case requirements, alpha numeric, etc as needed if you like.



Sample Users File for Setup and Playing. See [includes](#).

Owners Name or Password is Bo for 'Security' and 'Users' file.

Logon's and passwords are same as levels

Name 1 Password 1 Security Level 1
 Name 2 Password 2 Security Level 2
 Name 3 Password 3 Security Level 3
 Name 4 Password 4 Security Level 5
 Name 5 Password 5 Security Level 5
 Name 6 Password 6 Security Level 6
 Name 7 Password 7 Security Level 7
 Name 8 Password 8 Security Level 8
 Name 9 Password 9 Security Level 9
 Name 10 Password 10 Security Level 10

5 Security File

The security file must follow the following file definition.

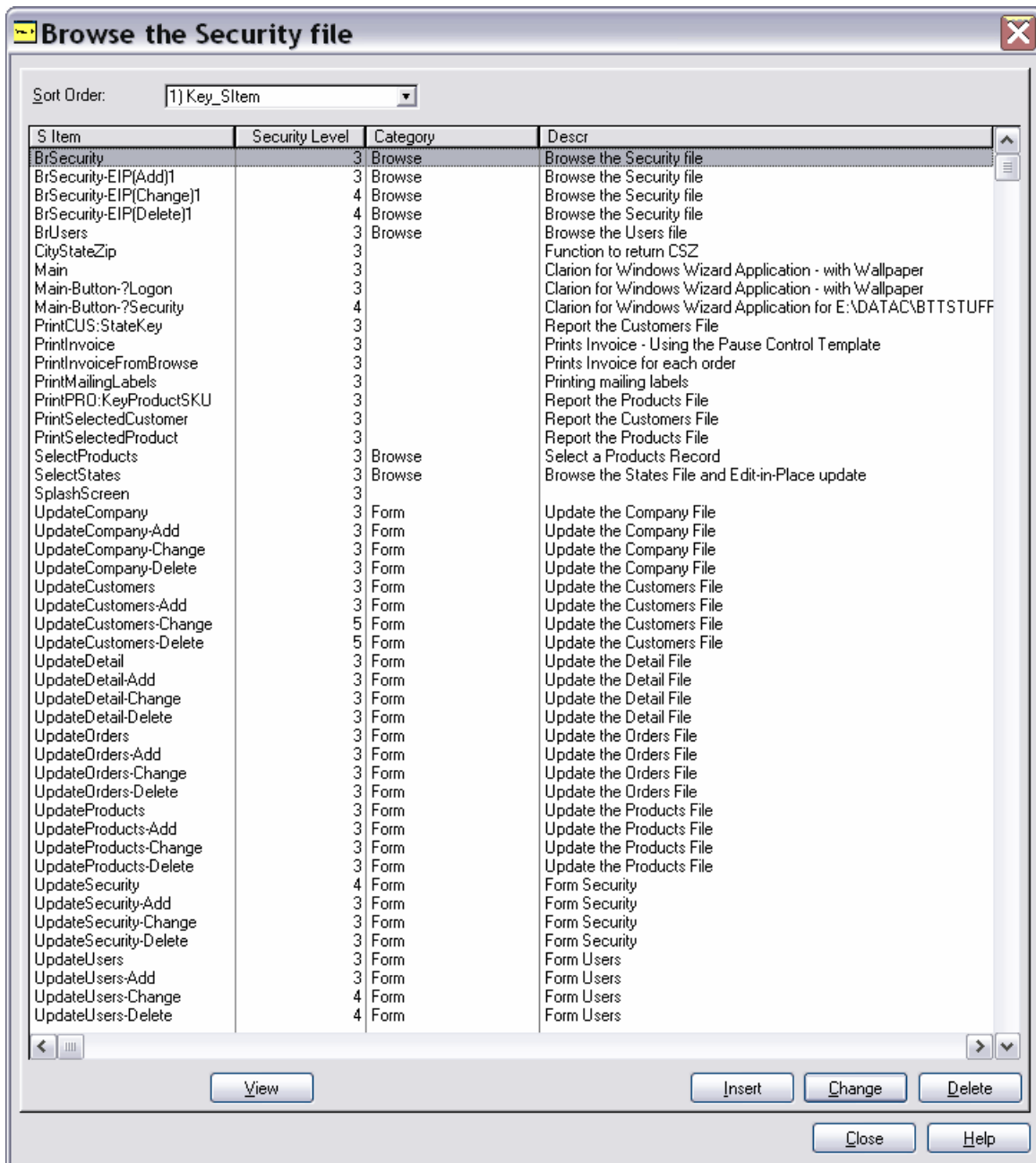
It can have a different name and Owner than this definition, but **the file structure must be identical** as it is used by the BSec Classes.

You can even use a variable for the owners name in your app.

```
Security      FILE,DRIVER('TOPSPEED'),OWNER('Bo'),PRE(SEC),CREATE,BINDABLE
Key_SItem    KEY(SEC:SItem),NOCASE,PRIMARY
Record       RECORD,PRE()
SItem        STRING(75)
SecurityLevel BYTE
Category     STRING(35)
Descr        STRING(75)
              END
            END
```

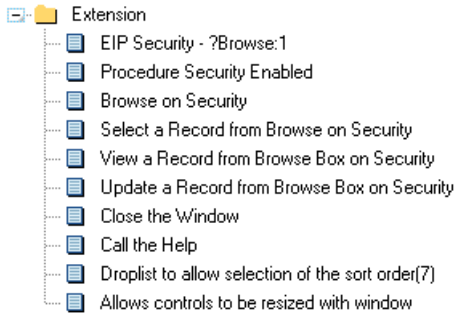
A txd is provided to import into your dictionary for the file definition. See [includes](#).

BSec uses Logical labeling with the Procedure Name, EIP, action name, and/or button name for the procedures and controls in question. This is used for the S Item Field in the Security File and should not be changed. This Field, and the Key on it, are used by the BSec Class to do the lookups. The other three fields are readily user accessible and can be changed to provide the security levels, more meaningful end user category and descriptions, as well as having additional sort orders added to the end user's local browses, etc. They are filled by Jumpstart with the procedure category and procedure Description for starters.



6 IDE Extension Tree Clarity

BSec tries to use the IDE application tree to quickly identify many of the security items installed in the app. The right pane in C55 and C6 will display if the procedure security template is enabled or disabled on the procedure, the call logon template displays the name of the logon procedure called, Button Security displays the name of the button it is protecting, and EIP displays the browse being protected.



Code templates are identified in the embed tree.

