



BSRef Application Reference System

1.2.0

Bo's Template Tamers

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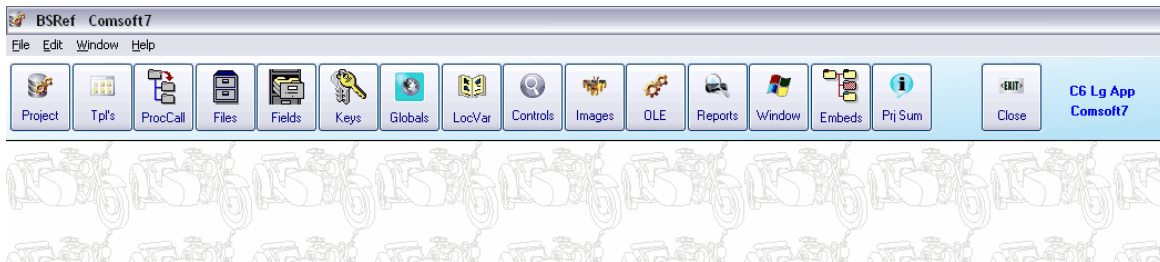
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1 Introduction

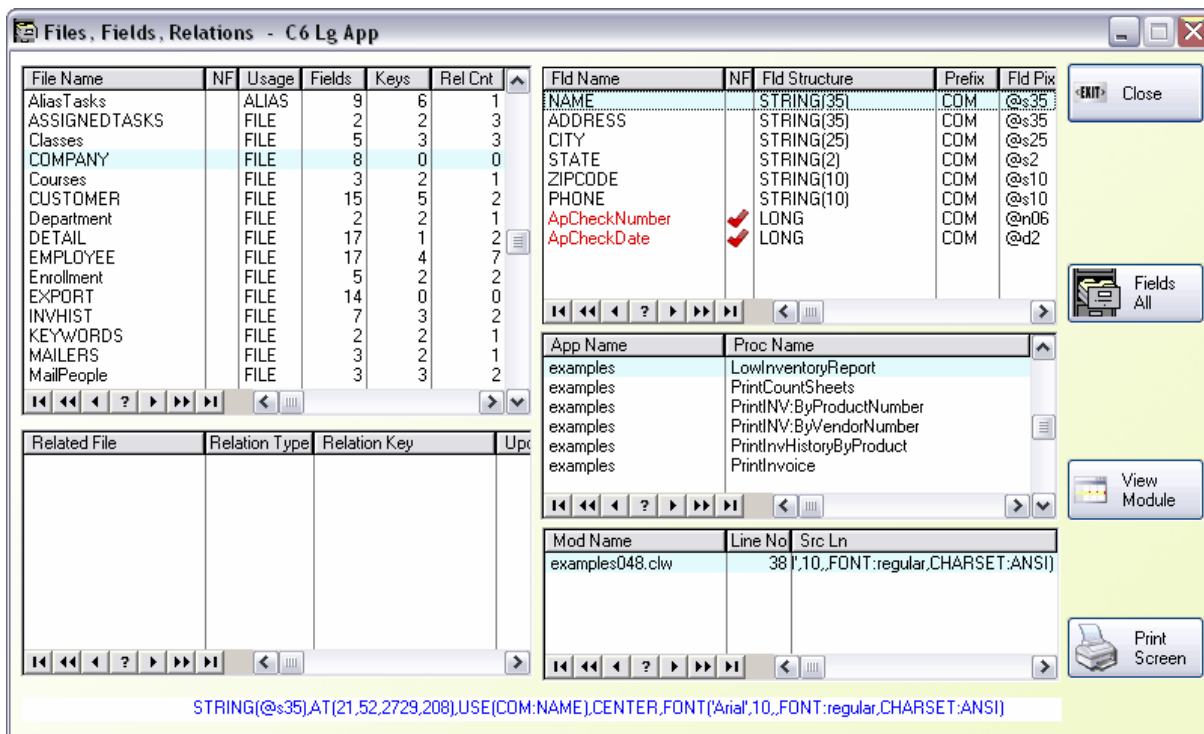
BSRef is a combination template and Application Suite that helps you analyze your projects.

Templates work in all Clarion Versions from CW4x thru C7x.

BSRef is a well mannered Application with column sort headers on all listboxes, additional search feature in key locations, and is fully multi-threaded so importing can be minimized and other things can be done. Because it is threaded, you can view many projects at the same time, by selecting a project, open a window, select another project, open the window for that project, and view them side by side.

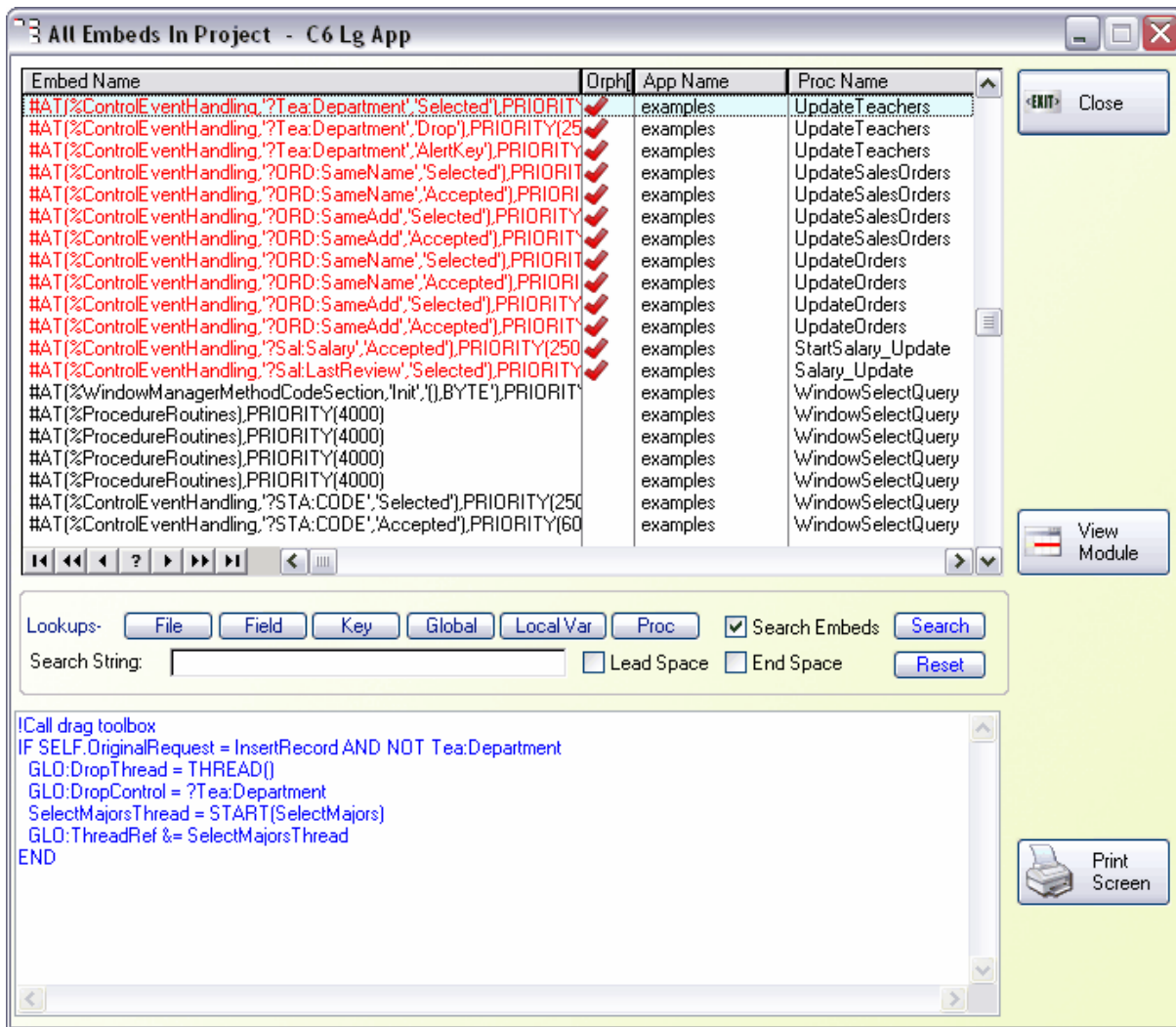


BSRef Searches the generated *.CLW files for all occurrences of the Global Variables, Files, Fields, Keys, Local Variables, Globally declared procedures, and indicates which ones are found/not found.



As you can see, BSRef also indicates each procedure and application where that particular item is found. BSRef displays the line of code in the module where it found the item.

BSRef also imports the embeds in a manner that can be cut and pasted to other apps. BSRef indicates any orphaned embeds found.



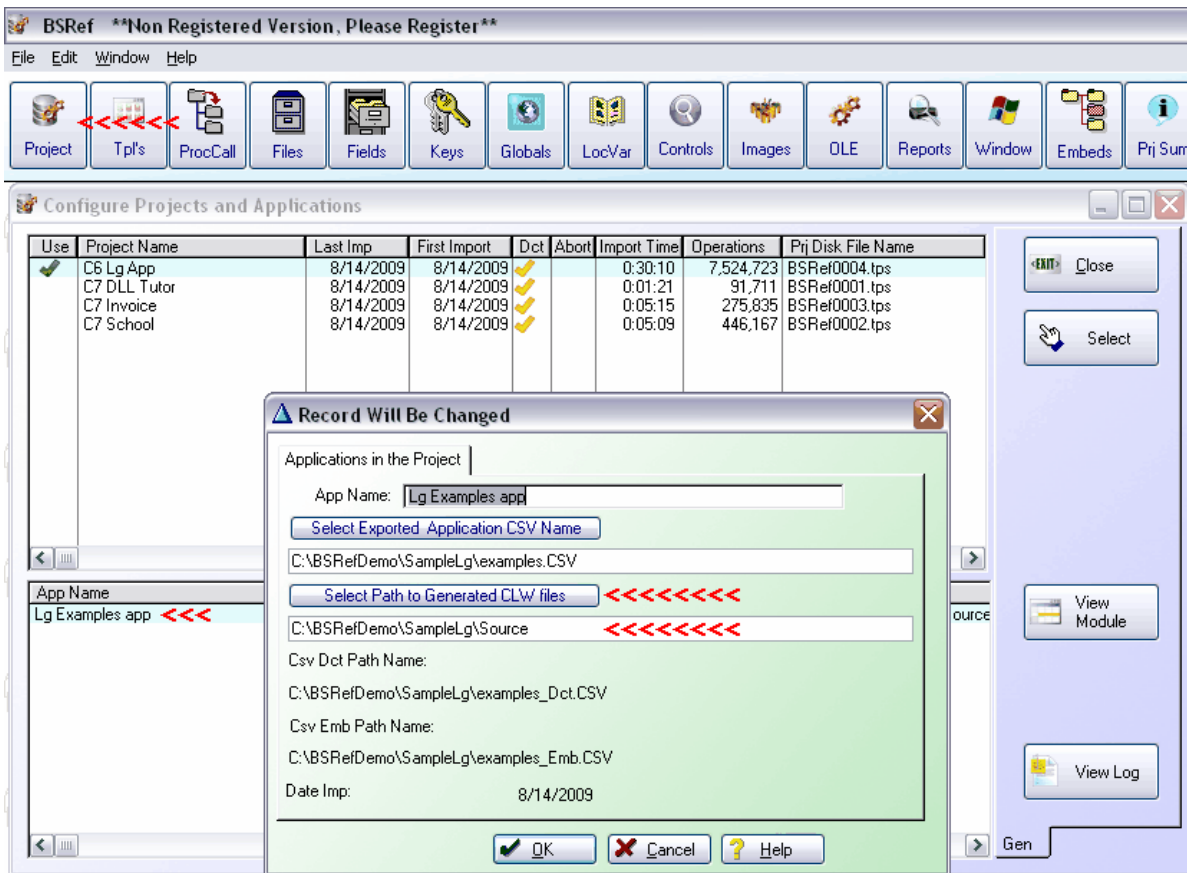
1.1 BSRef Demo

The demo is designed to be installed in the C:\BSRefDemo Directory.

If you install to some other directory, you will need to update the project Application files to reflect the new location.

Otherwise you will not be able to view the source files.

Click on the Project Button, and double click each App under each Project, and update the path to the *.clw files.



1.2 Getting Started

BSRef is a combination template and Application Suite that helps you analyze your projects.

Templates work in all Clarion Versions from CW4x thru C7x.

Make sure you have the BSRef Templates registered in Clarion, and have registered the BSRef Application by entering your registration name and Key code.

If you only want a one time analysis, run the utility template [BSRef](#) on the application when it is loaded in your ide.

If you are actively developing an app and want to continuously monitor and analyze the application, install the [BSRefAutoExport Global](#) template and set the options you wish.

Then open BSRef Application, and [Add the Project](#) and [Import](#).

1.3 License

License & Copyright Notice

BSRef Analyze your Application Suite

BSRef Templates and Application are copyright 2003 - 2009 by Comsoft7.
None of the files included in this package may be distributed individually or in an altered state without first contacting the author.

BSRef is provided without warrantee or guarantee, implied or otherwise. Use at your own risk. Using BSRef 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 BSRef.

```
#! BSRef Templates and Application are the intellectual property of
#! Bo Schmitz - AKA Comsoft7 Copyright 1985-2009
#!
#! The author has developed all template code and the Application independently.
#!
#! Licensing is based on Softvelocity's - one developer can run
#! BSRef 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 BSRef 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 BSRef is all code, please observe the copyright.
#! I made the decision to not BlackBox BSRef , 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.
#!
#! BSRef 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 10, 2009 BSRef Ver 1.2 released.

Optimized everything with stream, flush, open in exclusive mode, etc.
Added switch to only search for declared files in procedures.
Added searching for Global Procedures.

August 14, 2009 BSRef Ver 1.0 released.

2 BSRef App

BSRef is a fully threaded, multi-project, well behaved application to import, analyze, and display data about your application, including the Global variables, Files, Keys, Fields, Relationships, Local Variables, controls, windows, reports, and embeds.

All browses have sortable headers, and some have additional search capabilities added. All screens have a print screen button that will print the browse information in all the forms available in SV templates. Tweak the window to show the data you want, and hit the print screen button.



This Report Generated with BSRef©

Non Registered Version, Please Register

8/14/2009

4:06 PM

File Keys where Used - C6 Lg App

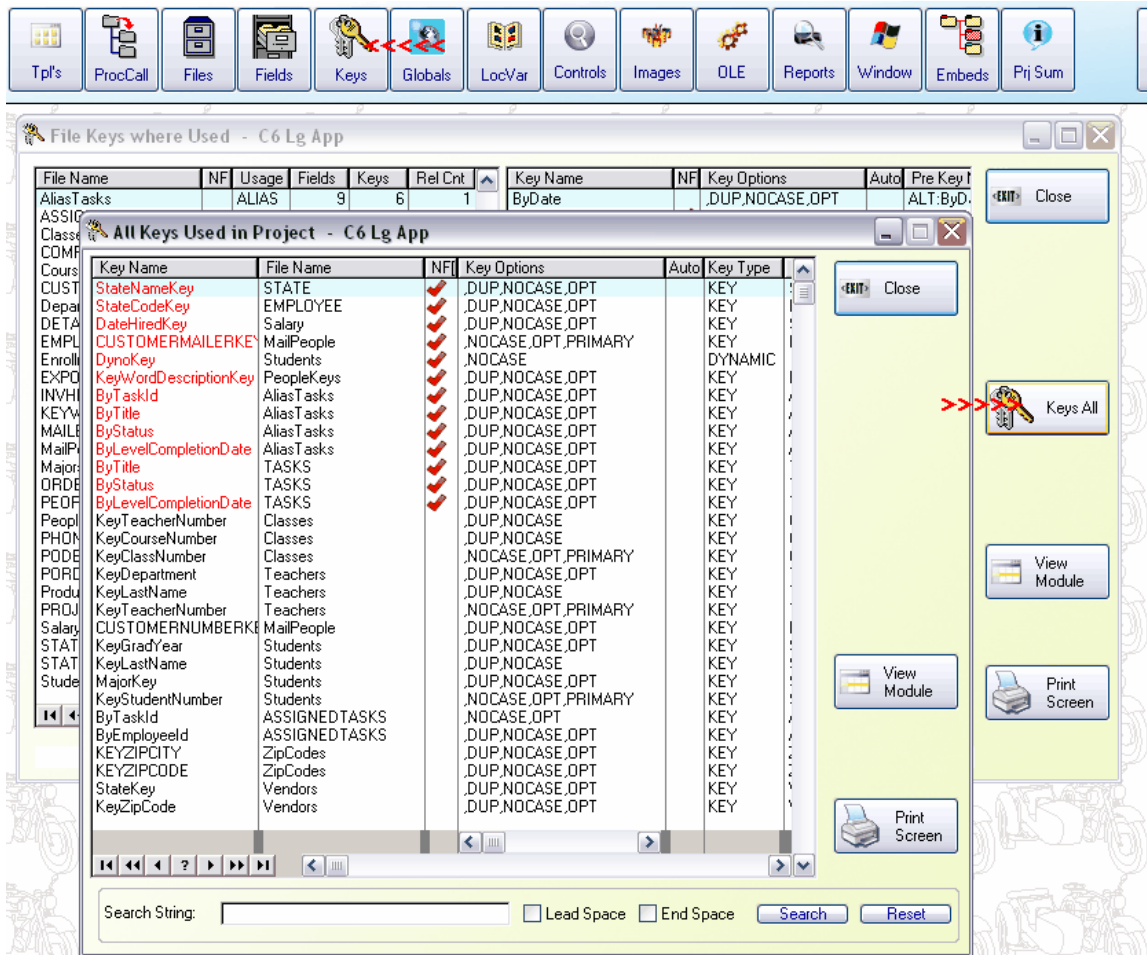
File Name	NF	Usage	Fields	Keys	Rel Cnt	Key Name	NF	Key Options	Auto	Pre Key Nai
AliasTasks		ALIAS	9	6	1	ByDate		,DUP,NOCASE,OPT		ALT:ByDate
ASSIGNEDTASKS		FILE	2	2	3	ByLevelCompletionDate		,DUP,NOCASE,OPT		ALT:ByLeve
Classes		FILE	5	3	3	ByProjectIdLevel		,DUP,NOCASE,OPT		ALT:ByProj
COMPANY		FILE	8	0	0	ByStatus		,DUP,NOCASE,OPT		ALT:ByStat
Courses		FILE	3	2	1	ByTaskId		,DUP,NOCASE,OPT		ALT:ByTask
CUSTOMER		FILE	15	5	2	ByTitle		,DUP,NOCASE,OPT		ALT:ByTitle
Department		FILE	2	2	1					
DETAIL		FILE	17	1	2					
EMPLOYEE		FILE	17	4	7					
Enrollment		FILE	5	2	2					
EXPORT		FILE	14	0	0					
INVHIST		FILE	7	3	2					
KEYWORDS		FILE	2	2	1					
MAILERS		FILE	3	2	1					
MailPeople		FILE	3	3	2					
Majors		FILE	2	2	2					
ORDERS		FILE	14	2	3					
PEOPLE		FILE	14	3	3					
PeopleKeys		FILE	3	4	2					
PHONE		FILE	5	1	1					
PODETAIL		FILE	17	1	2					
PORDERS		FILE	14	2	3					
Products		FILE	9	3	3					
PROJECT		FILE	7	4	3					
Salary		FILE	6	2	1					
STATE		FILE	2	2	6					
STATUS		FILE	1	1	2					
Students		FILE	12	5	2					

App Name	Proc Name
examples	UpdateProject

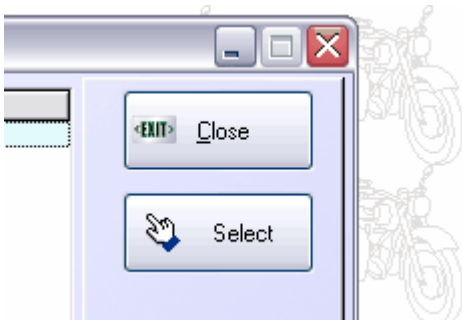
Mod Name	Line No	Src Ln
examples110.cdw	358	SET (ALT:ByDate,ALT:ByDate)

SET (ALT:ByDate,ALT:ByDate)

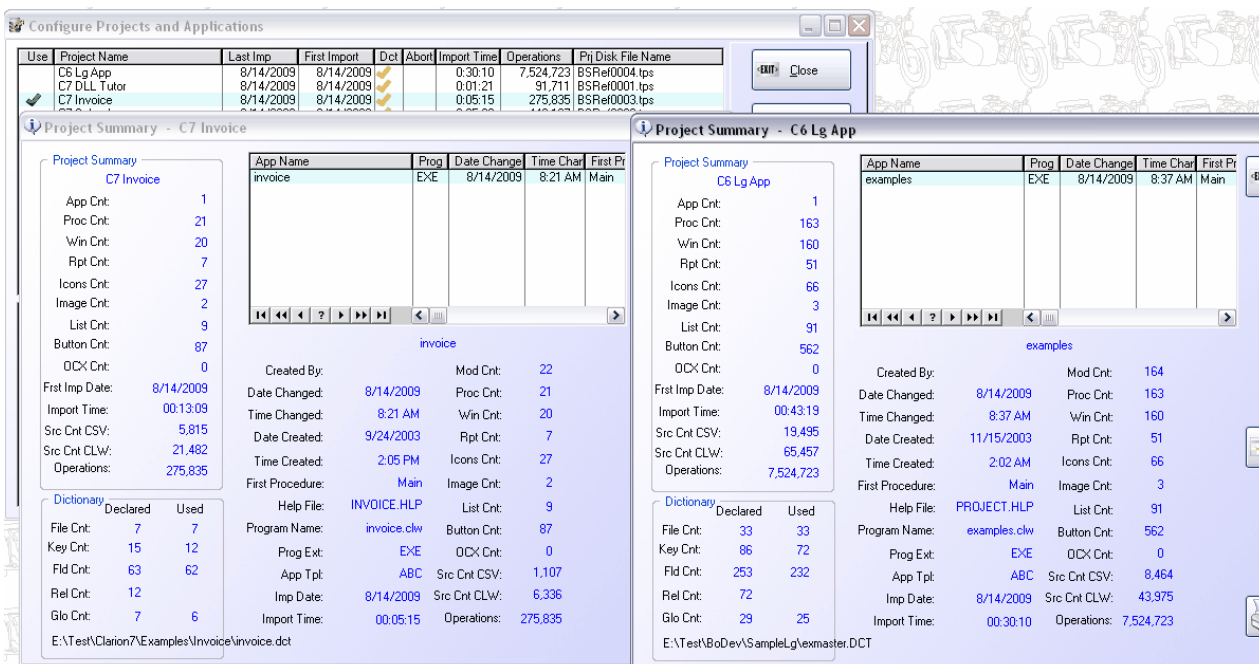
All important element displays have secondary 'Show All' type screens to allow sorting and searching to get the display info you want in your reports.



You can select multiple projects and open several windows at once to compare projects. You can store versions of projects, and open several at once to compare the progress. It will however only display the latest generated source files.



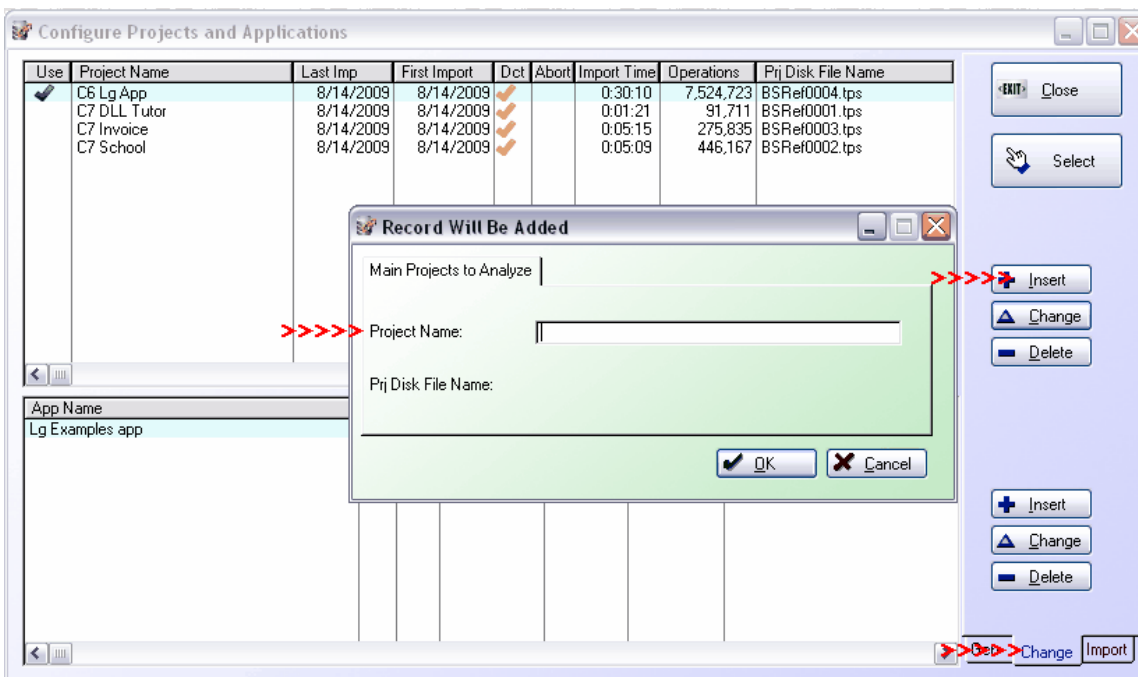
Open projects, select the project you want and press the select button. Then open the window you want with the toolbar button.



2.1 Add Projects

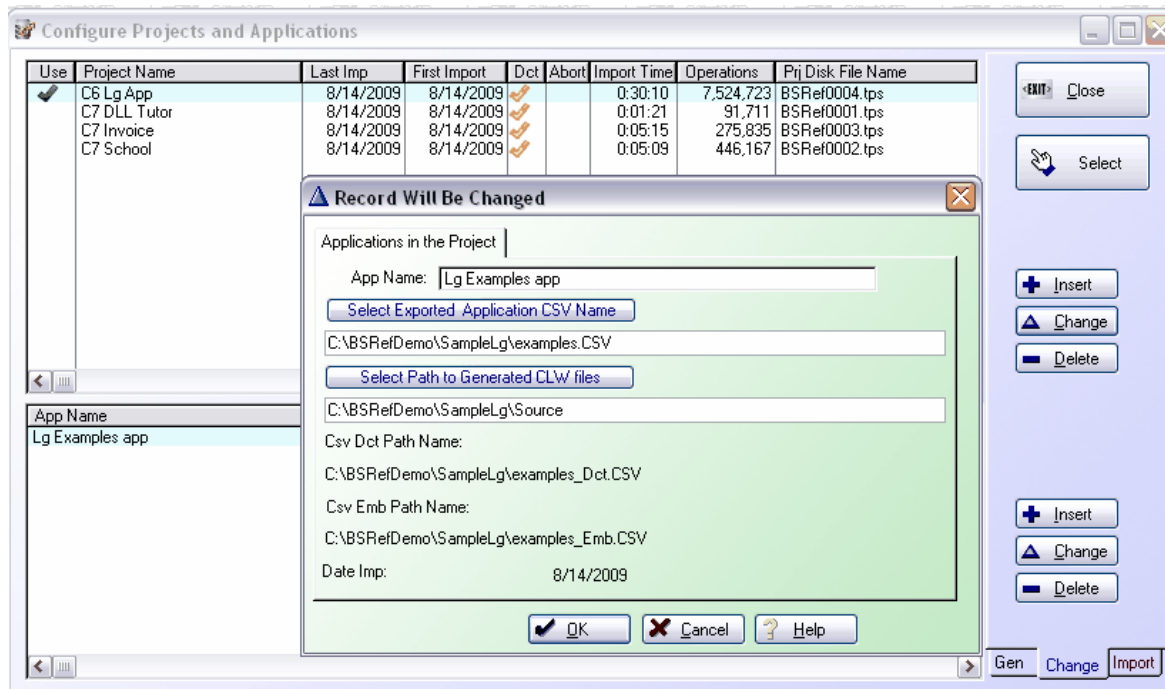
Click on the Project Button in the Toolbar.

Select the second tab in the Right Toolbar Pane and click on the insert button for projects. Add a meaning full name for your project, version, etc.



Then Click on the lower insert button for adding applications to the project, and it can be as many as needed for multi-dll apps or several exe's that all use the same dictionary. Add a meaning full name for the application, and lookup the main Application exe CSV file, and path to the generated source (*.clw) files. The prompts are lookup

(File Dialog) buttons for the entry fields.



Once you have added all the apps, you are ready to [import](#).

2.2 Importing

Select the import tab on the project screen.

The options available for importing depend on the current status of the project.



Press the select button to select the project you wish to work with.

Reset Project will delete the project file on disk, reset all control files, and prepares BSRef to import the changed project. This is how you update a project with a couple mouse clicks. It is only available on imported projects.

Import Project will import all applications in the currently selected project. It is only available if any Applications are available to import. It will import all applications gracefully, [abort](#) if there are any problems, and record any problems to the Log file.

Import App will only import the currently highlighted application, and is only available if it is not imported. It will import the App and wait for user intervention to close the import progress window.

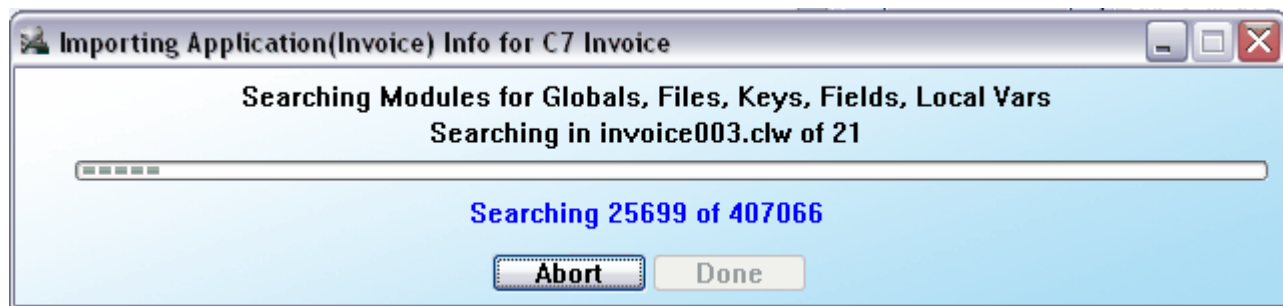
If you do not open and close files in embeds that are not declared thru the files, other files, or template prompts in the procedure, then select the **Only Search for Files Declared in Procedures, Faster** checkbox. It will only search for the declared files in the embeds. If you hand code files, renaming, opening, etc, then leave this unchecked to search for all the files in the dictionary. This can take considerable time for very large dictionaries.

The import process itself goes thru several stages. It imports the dictionary once for each project. Next comes importing the application CSV. The big time consumer is next, searching the *.clw files and analyzes them. Finally it imports the embed file and updates the files.

All the import screens are extremely accurate except the "searching" screen, which uses a SWAG (sophisticated wild a\$\$ guess) to determine the number of cpu flops required. It is fairly accurate, but misses every time.<G>

The import process is very well mannered, will not hog the cpu, and can be minimized while doing other things. The speed of import and time for import depends greatly on the number of cpu flops required, the cpu speed, disk access speed, the size of your app, the size of the dictionary, how many global variables, how many local variables, etc. Your mileage will vary.

Project Name	Last Imp	First Import	Dct	Abort	Import Time	Operations
C6 Lg App	8/14/2009	8/14/2009	✓		0:30:10	7,524,723
C7 DLL Tutor	8/14/2009	8/14/2009	✓		0:01:21	91,711
C7 Invoice	8/14/2009	8/14/2009	✓		0:05:15	275,835
C7 School	8/14/2009	8/14/2009	✓		0:05:09	446,167



2.2.1 Abort

When a project aborts.

A project aborts for several Reasons.

User presses abort.

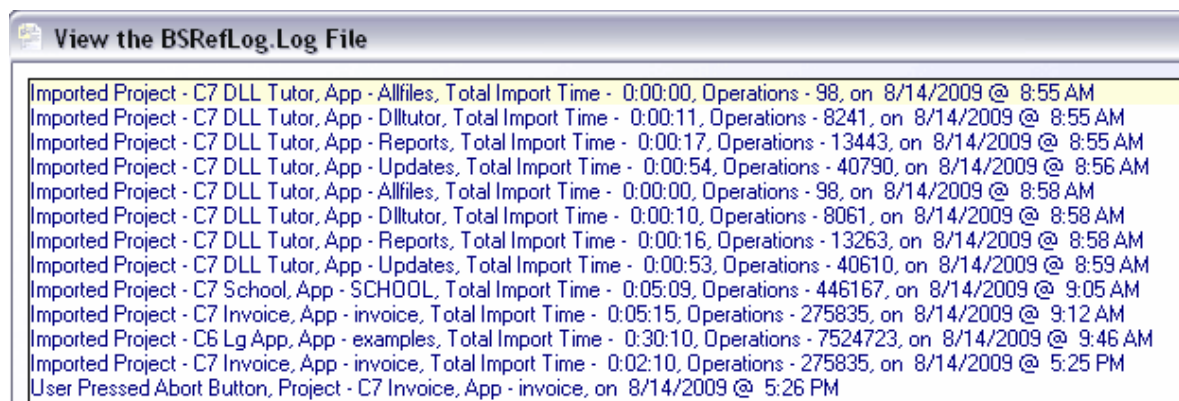
CSV file pointer is wrong.

Generated *.clw path pointer not correct.

Missing or deleted files.

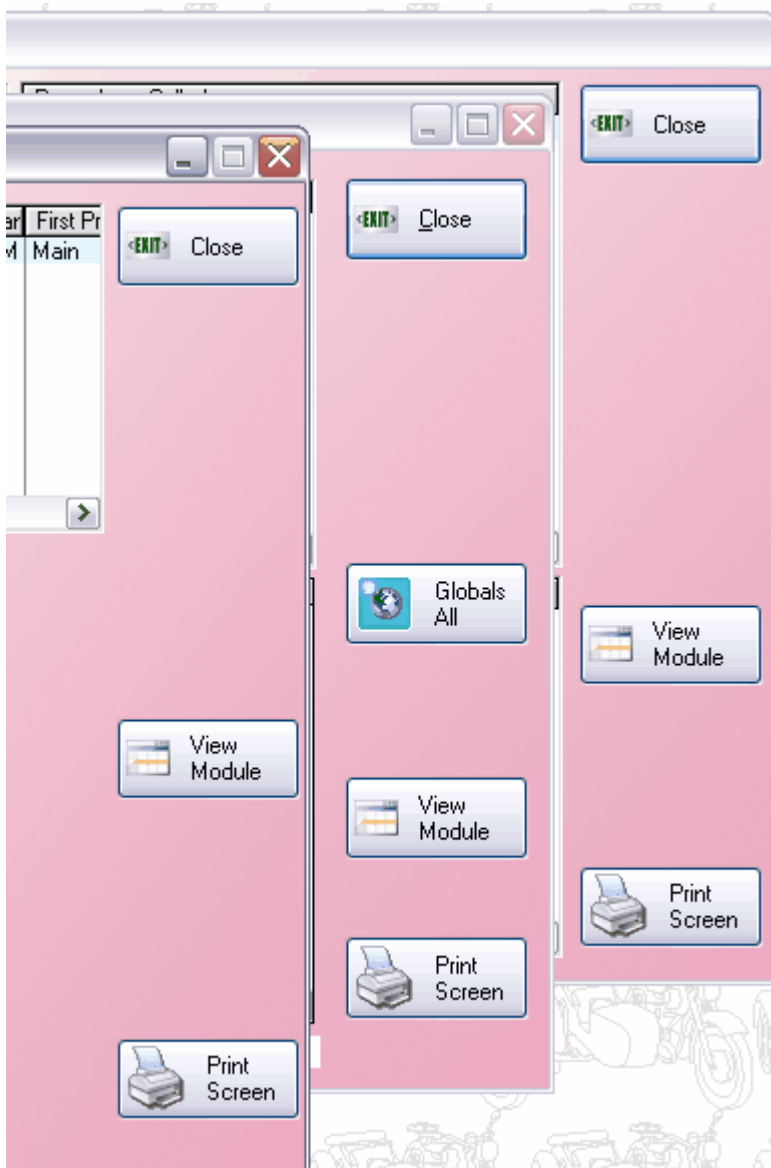
Rare and serious problem in BSRef.<seg>

Abort will log the reason to the log file, mark the files in project screen, and turn all the other screens crimson to indicate the data integrity has been compromised.



Configure Projects and Applications						
Use	Project Name	Last Imp	First Import	Dct	Abort	
	C6 Lg App	8/14/2009	8/14/2009	✓		
	C7 DLL Tutor	8/14/2009	8/14/2009	✓		
✓	C7 Invoice	8/14/2009	8/14/2009	✓	✓	
	C7 School	8/14/2009	8/14/2009	✓		

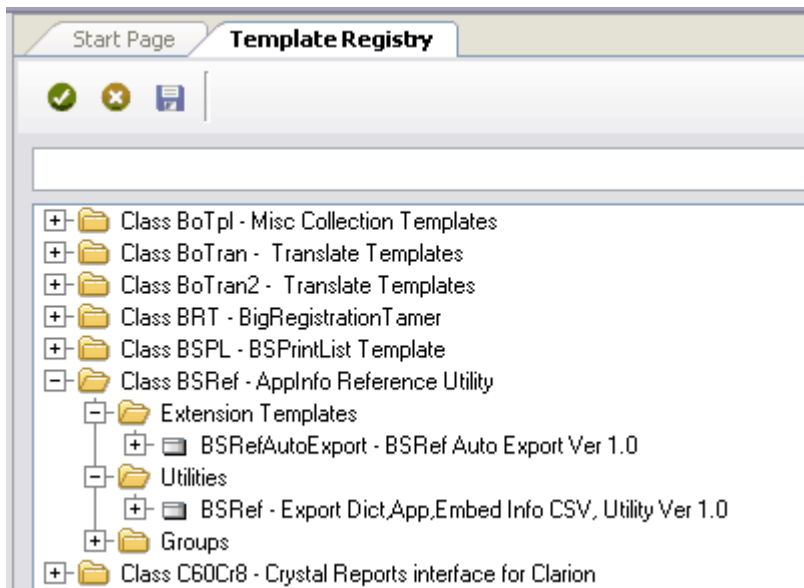
App Name	Imp	Abort	Date Imp	Impo
Invoice	✓	✓	8/14/2009	



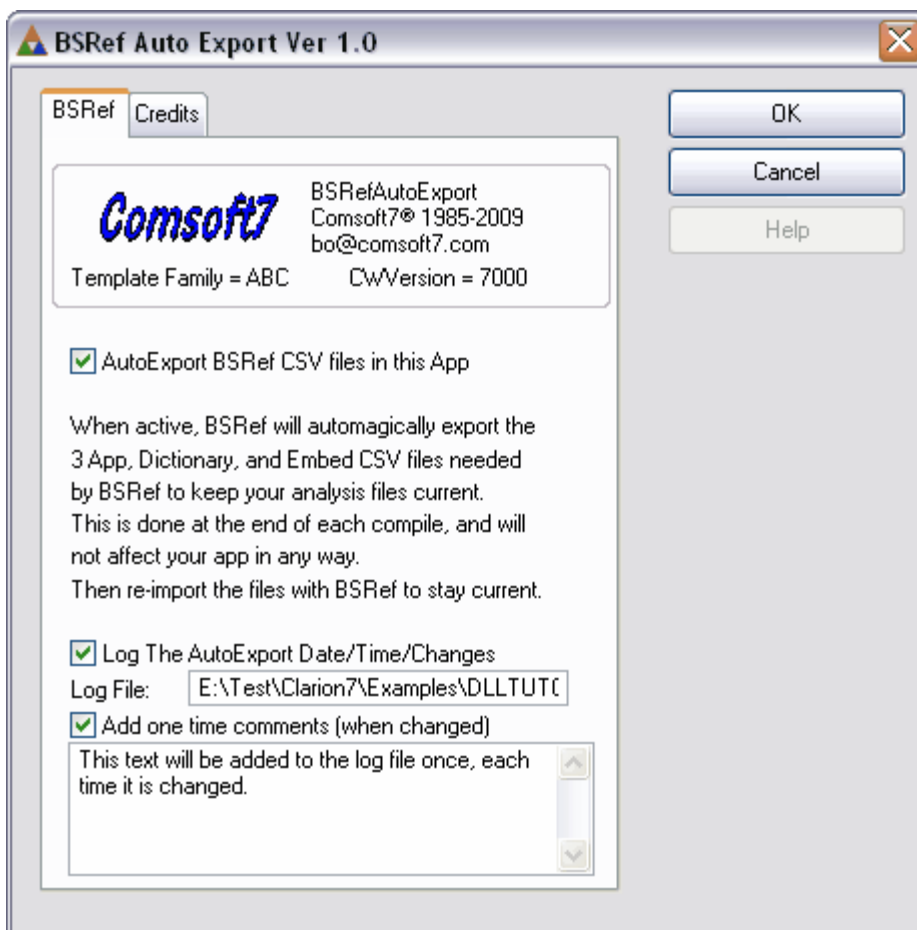
The solution involves correcting the problem, resetting the project, and import again.

3 BSRef Templates

BSRef comes with 2 Templates. An extension for auto exporting, and a utility for single or onetime export.



3.1 BSRefAutoExport Global



Adding the Global Template **BSRefAutoExport** will automatically export the needed CSV files needed by BSRef

application to analyze your application.

Checking the '**AutoExport BSRef CSV files in this App**' will turn the template on or off.

Checking '**Log The AutoExport Date/Time/Changes**' will also create a log file with the name selected and log the activity each time the application is compiled. It will log dictionary and procedure changes since the last compile.

Checking '**Add one time comments (when changed)**' will add any text in the box to the log file **once**, and won't add it again until the text is changed.

Log File Sample created during BSRef Development.

```
***** BSRef.EXE Compiled on 8/13/2009 at 8:00 AM *****
Controls Changed on 8/13/2009 at 7:59 AM
EmbedsAll Changed on 8/13/2009 at 8:00 AM
***** BSRef.EXE Compiled on 8/13/2009 at 8:06 AM *****
Procedure- Files_Fields_Relations - Changed on 8/13/2009 at 8:05 AM
Procedure- FieldsAll - Changed on 8/13/2009 at 8:05 AM
-----
Tweaks in Screens.
***** BSRef.EXE Compiled on 8/13/2009 at 8:12 AM *****
Procedure - FilesUsed - Changed on 8/13/2009 at 8:10 AM
Procedure - Files_Keys - Changed on 8/13/2009 at 8:11 AM
Procedure - FilesAll - Changed on 8/13/2009 at 8:11 AM
-----
Moved buttons to standardize.
***** BSRef.EXE Compiled on 8/13/2009 at 8:15 AM *****
***** BSRef.EXE Compiled on 8/13/2009 at 12:12 PM *****
Dictionary Changed on 8/13/2009 at 11:38 AM -- E:\Test\BoDev\BSRef.dct
Procedure - Main - Changed on 8/13/2009 at 12:06 PM
Procedure - MainProject - Changed on 8/13/2009 at 12:07 PM
Procedure - PWREPORT - Changed on 8/13/2009 at 12:11 PM
Procedure - PWPReport - Changed on 8/13/2009 at 12:12 PM
Procedure - BRTWin - Changed on 8/13/2009 at 11:46 AM
Procedure - RegApp - Changed on 8/13/2009 at 11:48 AM
***** BSRef.EXE Compiled on 8/13/2009 at 12:24 PM *****
Procedure - Main - Changed on 8/13/2009 at 12:24 PM
```

3.2 BSRef Utility Template

Using the utility template **BSRef,'Export Dict,App,Embed Info CSV, Utility Ver 1.0'** is almost undetectable and quickly generates the three CSV files needed by BSRef application to import and analyze your application. The longest time is used by the export embeds, and will momentarily blip a message on your screen in C6.

Ctrl_U and typing BS will lead you close to it in your application designer screen.

4 Caveats

Searching the generated clw files for global and local variables can be skewed by naming conventions.

Glo:Name

will also find
Glo:Name1
Glo:Name2
Glo:NameFirst
Glo:NameLast

etc.

Same is true for local variables, or global's when using common or Reserved IDE words for them.

Procedure, set, description, and common words used by the ide in generated clw modules.

Proper use of prefixes, and unique naming in first couple letters greatly reduces this risk.

BSRef uses the double quote for field separators in the generated CSV files.

"Procedure", etc.

Developers using the double quote in tips, messages, screen names, etc. will notice problems in data accuracy.