

## What is IDA?

This facility records differences at the source code and data levels between the user's current software release and a predetermined baseline. At the source code level the difference analysis highlights and records only those changes that involve the addition, removal or modification of functional code.

## Benefits of TBevolve IDA

- Detect changes to your source code
- Identifies where changes will affect functionality
- Locates software defects
- Assists with ongoing maintenance
- Enables software version comparisons

## IDA Facilities

- IDA identifies and ignores any differences that are brought about purely due to positional changes and occur as a result of reordering or reformatting existing code. This removes a considerable 'noise' overhead that is a feature of less sophisticated difference facilities.
- At the data level TBevolve highlights and records changes to existing data items and the addition of new data items. In a further extension to this basic functionality TBevolve reports on the movement of data items with respect to definition and usage, e.g. if the definition of a data item is moved from the main body of source code into an included file. TBevolve also highlights and reports changes in usage of data items. An example would be if a variable was previously read in and referenced, but the program has now been modified to output the variable, then this change of usage is detected and reported.

**TBbrowse**

File Edit View Window Help

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**Program Difference Analysis Results**

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File under test : "D:\Server\_Testbed\Accounts\_System\_Driver.c"  
 Date of analysis : Tue Jun 17 13:58:45 2003  
 by LDRA Testbed : Version 7.0.9

Baseline date : Tue Jun 17 13:46:31 2003  
 by LDRA Testbed : Version 7.0.9

**Text Difference Overview**

**Modified code areas:-**

35 lines changed to 40 lines in function call\_processing  
 120 lines changed to 100 lines in function number\_telephone\_call\_per  
 70 lines changed to 32 lines in function system\_processing  
 42 lines changed to 47 lines in function cost\_saving

**New code areas:-**

12 reformatted lines in function call\_processing  
 18 reformatted lines in function call\_processing  
 5 reformatted lines in function number\_telephone\_call\_per

**Executable Code Difference Overview**

1 difference(s) containing 4 lines in call\_processing  
 2 difference(s) containing 198 lines in number\_telephone\_call\_per  
 2 difference(s) containing 8 lines in system\_processing  
 1 difference(s) containing 11 lines in cost\_saving  
 1 difference(s) containing 17 lines in merge\_accounts\_phase\_one  
 22 difference(s) containing 1107 lines in merge\_accounts\_phase\_two  
 1 difference(s) containing 5 lines in format\_to\_unix  
 3 difference(s) containing 13 lines in totalize

Procedure	All Metrics	Clarity	Maintainability	Testability
call_processing	85	80	100	100
system_processing	81	70	80	85
number_telephone_call_per	88	70	100	100
cost_saving	85	80	100	100
merge_accounts_phase_one	100	100	100	100
merge_accounts_phase_two	83	80	100	100
format_to_unix	81	80	100	100
totalize	85	70	100	85
<b>Total for Testrun.c</b>	<b>86</b>	<b>86</b>	<b>100</b>	<b>100</b>

Intelligent Difference Analysis Display



Certificate Number FM 26376

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