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Compare two source code files and locate the differences quickly and easily with
this month's "Cool Tool."

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Cool Tool of the Month: Visual Compare

Sooner or later, you're going to run into the situation of needing to compare the
contents of two files. Perhaps you've got a .BAK file with a later file creation
date than the corresponding .PRG. Or maybe you went hog-wild with modifications on
a file one night, and then found the next morning that you were making changes to
an old copy - so now you've got two files - each with code that you want to keep.

You could try the COMP command included with DOS... if you are merely interested in
determining the first difference of the two files. John R. Whitney's shareware
program, Visual Compare, provides the ability to detect multiple differences in two
files in a variety of ways.

The problem

It's not hard to find two files that are dissimilar. Indeed, we all seem to be able
to it without trying... The trick is reconcilling the differences. Too often, File
A has some lines that File B doesn't have, and _vice versa_!

You've probably discovered the trick of creating two editing windows in FoxPro that
are each 40 columns wide. (If you're an old hand at this, you know that the "P" in
the "Program" menu option marks the 40th column of the screen.) However, this
solution has some shortcomings.

First, you can only spot changes in the first 37 characters of a line if you have
word wrap turned off.

Second, it's all too easy to miss a line that's in one file but not in the other
when you're paging through each window.

And third, even if the line is short, after looking at many screens, it's easy to
miss a couple of characters within a line that differ - a zero or an eight, for
example.

The solution

Visual Compare allows comparison of two files in either a single "composite" file
or a split screen view that shows both files. Both views show the differences
highlighted in color. The lines that are the same in both files are shown in blue,
the lines that are in File1 but not in File2 are shown in red, and the lines that
are in File2 but don't appear in File1 display in green.

You've got a number of options for viewing the files. The composite file view is
the initial screen you'll see, but you can toggle to the split screen view - and
you can split the screen either horizontally or vertically. Naturally, the two
screens in the split screen view scroll as you move through one of the files. You
can also toggle line numbers, and view the composite file with the lines unique to
File1 and File2 removed.

Using Visual Compare

The basic syntax for running Visual Compare from within FoxPro is straighforward:

run VC file1 file2

John has added a number of nice touches to this syntax. For example,

run VC \dir1\file1.prg \dir2\

will look for FILE1.PRG in the DIR2 directory. Furthermore,

run VC cool_vc.txt *.bak

is the same as

run VC cool_vc.txt cool_vc.bak

You can use command line switches to control how tabs are handled and whether to use 25, 43 or 50 line mode (Visual Compare will default to the current video mode you're using in FoxPro, but you can override it with this switch). You can also write the composite file to disk.

Controlling the comparison method

Visual Compare was written to perform line comparisons. This means that it is possible for VC to compare two files that are not the same at the byte level but report that they are identical. For example, a line may end in a CR or a CR-LF or may contain leading or trailing tabs or spaces. A file may contain Ctrl-Zs and there may be differences in capitalization.

You have three switches to control how the comparisons are made.

First, the /I (Ignore) switch will disregard leading tabs and spaces, so that the following lines would be considered the same:

set sysmenu off
     set sysmenu off

Secondly, the /K (Kase) switch will ignore capitalization differences. In FoxPro, capitalization doesn't matter, but in other languages, two variables that are spelled the same are considered to be distinct if their case differs.

Third, the /Z switch will override the Ignore and Kase switches and report on every difference - line terminations, tabs vs spaces, and so on.

VC comes with an 18 page help file and an abbreviated help screen displays via F1.

Some possible uses

Obviously, your primary use will be to compare versions of a file, such as the same file that has appeared in different directories, or the PRG and BAK of a single file. However, I've also found it useful to compare "before and after" versions of CONFIG.SYS and AUTOEXEC.BAT during installation of new software, CONFIG.FP files for various flavors of FoxPro, the SPRs for DOS and Windows versions of an app, and even, in limited cases, binary files like MEM, DBF or FPTs.

Where to Find Visual Compare

The latest version of Visual Compare is 1.52. You can find it on this month's Companion Disk or on several programming-realted forums on CompuServe. Look for VC152.ZIP. Remember: This is shareware. If you like it and use it, send the author

$30. If you don't access to the Companion Disk or CompuServe, you can order it for $30 directly from the developer at Whitney Software, Inc., P.O. Box 4999, Walnut Creek, CA 94596 USA. CompuServe 70661,3463.