Burt Rosenberg

Files in Pascal

The discussion in *Oh! Pascal!* shows how to use the Turbo Pascal 6.0 *assign* statement to open a named file for input or output as well as the use of input/output redirection. Here we will discuss how these things are done in the VMS and Ultrix versions of Pascal. Here is a simple program which will open named files for input and output. Uncomment the section that applies:

```pascal
program testfiles( input, output ) ;
{ Rewrites backwards the file named sin to
  the file named sout. }

{>>>>>>> Common code }

var
  fin, fout : text ;
  sin, sout : packed array [1..125] of char ;

procedure writeBackwards ;
var
  s : array[1..255] of char ;
  i, j : integer ;
begin
  while (not eof(fin)) do begin
    i := 1 ;
    while (not eoln(fin)) do begin
      read( fin, s[i] ) ;
      i := i + 1 ;
    end ;
    for j := i-1 downto 1 do
      write( fout, s[j] ) ;
    readln( fin ) ;
    writeln( fout ) ;
  end ;
end ;


begin {Start of main program.}

  write('Name of input file: ' ) ;
  readln( sin ) ;
  write('Name of output file: ' ) ;
  readln( sout ) ;
```

```
{>>>>>>> if on VAX/VMS
  open( fin, sin, history:=old ) ;
  reset( fin ) ;
  open( fout, sout, history:=unknown ) ;
  rewrite( fout ) ;
}

{>>>>>>> if on RISC/Ultrix
  reset( fin, sin ) ;
  rewrite( fout, sout ) ;
}

{>>>>>>> on both
}
  writeBackwards ;

  close( fin ) ;
  close( fout ) ;

end.
```

The other option is to write your code as if input was from the keyboard and output was to the screen and then *redirect* input and output at run time. To redirect on VMS type,

```
$ define /user_mode sys$input infile.txt
$ define /user_mode sys$output outfile.txt
$ run aPascalProgram
```

Only the *very next command* will be run in redirected mode. The */user_mode* option in the define command instructs VMS to reset the mode after the next command. If you forget the /user_mode option your *dir* commands will also pipe into the redirect output file. In these cases, use *deassign* to "unset" the connection:

```
$ deassign sys$input
$ deassign sys$output
```

To redirect input and output on Ultrix,

```
impala> aPascalProgram < inFile.txt > outFile.txt
```

If you would rather that the output from aPascalProgram be added onto the end of outFile.txt, use,

```
impala> aPascalProgram < inFile.txt >> outFile.txt
```