

# Illustration L.2 -- Better Program Layout

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program PRINTDATE (INPUT, OUTPUT);

+ -- This program reads in a date given in the form
--   MMDDYY
-- and prints it in the form
--   MONTH DAY YEAR
-- For example,
--   022243
-- is printed as
--   February 22, 1943
--
-- No input checking is performed, i.e., the user must
-- enter a valid date. +

const
  BLANK = ' ';
  NUMMONTHS = 12;
  MAXNAMELENGTH = 9;

type
  NAME = packed array [1..MAXNAMELENGTH] of CHAR;
  NAMETABLE = array [1..NUMMONTHS] of MONTHNAME;

var
  M1, M2,
  D1, D2,
  Y1, Y2: CHAR;

  MONTHNUM,
  CHARCOUNT: INTEGER;
  BLANKFOUND: BOOLEAN;
  NEXTCHAR: CHAR;
  PRINTNAME: NAME;
  MONTHS: NAMETABLE;

begin
  SETMONTHNAMES (MONTHS);
  WRITELN ('Enter a date in the form MMDDYY:');
  READLN (M1, M2, D1, D2, Y1, Y2);

  if M1 = '0' then
    begin
      if M2 = '1' then MONTHNUM := 1;
      if M2 = '2' then MONTHNUM := 2;
      if M2 = '3' then MONTHNUM := 3;
      if M2 = '4' then MONTHNUM := 4;
      if M2 = '5' then MONTHNUM := 5;
      if M2 = '6' then MONTHNUM := 6;
      if M2 = '7' then MONTHNUM := 7;
      if M2 = '8' then MONTHNUM := 8;
      if M2 = '9' then MONTHNUM := 9;
    end
  else
    begin + -- M1 = '1' +
      if M2 = '0' then MONTHNUM := 10;
      if M2 = '1' then MONTHNUM := 11;
      if M2 = '2' then MONTHNUM := 12;
    end;
  end;
  PRINTNAME := MONTHS[MONTHNUM];

  CHARCOUNT := 0;
  BLANKFOUND := FALSE;
  while (not BLANKFOUND) and (CHARCOUNT < MAXNAMELENGTH) do begin
    CHARCOUNT := CHARCOUNT + 1;
    NEXTCHAR := PRINTNAME[CHARCOUNT];
    if NEXTCHAR = BLANK then
      BLANKFOUND := TRUE
    else
      WRITE (NEXTCHAR);
  end;

  WRITELN (' ', D1, D1, ' ', ' ', '19', Y1, Y2)
end.

```