

COBOL Programming Standards

I. IDENTIFICATION DIVISION.

The PROGRAM-ID should be an eight character descriptive name of the program.

The AUTHOR must be the name of the student.

The date must include DATE-COMPILED.

There must be remarks divided into specific paragraphs as indicated. The paragraph titles should be displayed in column twelve with the rest of the paragraph indented for clarity.

FUNCTION. Briefly state the function of the program.

INPUT FILES. List the internal name for each file used as input, followed by its disk file name and the sort sequence (if any) of the file.

OUTPUT FILES. List the internal name for each file used for output, followed by its disk file name and the sort sequence (if any) of the file.

PRINTER OUTPUT. Describe briefly each report generated by this program, including information about control breaks.

II. ENVIRONMENT DIVISION.

INPUT-OUTPUT SECTION. Select files by the order in which they are used.

III. DATA DIVISION.

Insert a blank line before each 01 level number.

Level numbers.

Use non-contiguous level numbers in increments of five (05, 10, 15).

Indent each higher level number four columns or other standard number of spaces.

Indent **NO FEWER** than four spaces. .

PICTURE clause.

PICTURE clauses must be vertically aligned in the program.

The PICTURE of a data item should agree with its primary usage. It should be alphanumeric unless used for computation, subscription or editing. You should use Signed Numeric fields in all cases except for subscripts, counters, etc.

VALUE clauses must be vertically aligned in the program.

FILE SECTION.

Files should be defined in the same sequence as they were selected in the ENVIRONMENT DIVISION.

The file names should be descriptive of the function of the file.

Record names should be formulated to include the file description name and the word "RECORD".

Data items under the 01 level should be formulated to include a two character prefix that associates the data name with its record.

WORKING-STORAGE SECTION.

Data names should be descriptive of the function of the item.

Data names should be grouped under the 01 levels in the following order and prefixed as follows:

- 01 ACCUMULATORS.
Begin all data names with "A".
- 01 CONSTANTS.
Begin all data names with "C".
- 01 FLAGS.

Begin all data names with "F".

01 PRINT-LINES.
Begin all data names with "P".

01 WORK-AREAS.
Begin all data names with "W".

01 TABLES.
Begin all data names with "T".
Must be last entry in WORKING-
STORAGE.

Data items that cannot logically be grouped in the above categories should be appropriately grouped and inserted in the above list in alphabetical order by the 01 level data name. **(With the exception of 01 TABLES which is always the last entry.)**

Data names under each 01 level should be formulated to include a two (or more, if necessary) character prefix that associates the data name with its record.

WORKING-STORAGE elementary items should **NOT** have initial values except for constants, look-up tables, and constant values used for print lines or screens.

There should be no Value clauses in the File Section except for 88-level entries, which we will discuss.

I. PROCEDURE DIVISION.

General.

Use meaningful paragraph and section names. Begin each with an ascending four digit number indicating the sequence of the paragraph or section within the hierarchy chart. The number should be followed by a dash and the descriptive name, gaps should be left between numbers to facilitate program maintenance. For example:

First paragraph should be a 0000-MAIN.

This paragraph may have a 'next level' set of paragraphs (that it invokes (calls)) such as:

1000-INITIALIZE.
2000-COMPUTE-TAX.