NAME

llvm-locstats - calculate statistics on DWARF debug location

SYNOPSIS

llvm-locstats [*options*] [*filename*]

DESCRIPTION

llvm-locstats works like a wrapper around **llvm-dwarfdump**. It parses **llvm-dwarfdump** statistics regarding debug location by pretty printing it in a more human readable way.

The line 0% shows the number and the percentage of DIEs with no location information, but the line 100% shows the information for DIEs where there is location information in all code section bytes (where the variable or parameter is in the scope). The line [50%,60%) shows the number and the percentage of DIEs where the location information is between 50 and 60 percentage of its scope covered.

OPTIONS

   --only-variables

      calculate the location statistics only for local variables

   --only-formal-parameters

      calculate the location statistics only for formal parameters

   --ignore-debug-entry-values

      ignore the location statistics on locations containing the debug entry values DWARF operation

   --draw-plot

      make histogram of location buckets generated (requires matplotlib)

   --compare

      compare the debug location coverage on two files provided, and draw a plot showing the difference (requires matplotlib)

EXIT STATUS

llvm-locstats returns 0 if the input file were parsed successfully. Otherwise, it returns 1.

EXAMPLE 1

Pretty print the location coverage on the standard output.

llvm-locstats a.out

```
=================================================
        Debug Location Statistics
=================================================
     cov%      samples     percentage(~)
-------------------------------------------------
  0%              1          16%
  (0%,10%)        0           0%
  [10%,20%)       0           0%
  [20%,30%)       0           0%
  [30%,40%)       0           0%
  [40%,50%)       0           0%
  [50%,60%)       1          16%
  [60%,70%)       0           0%
  [70%,80%)       0           0%
  [80%,90%)       1          16%
  [90%,100%)      0           0%
  100%            3          50%
=================================================
-the number of debug variables processed: 6
-PC ranges covered: 81%
-------------------------------------------------
-total availability: 83%
=================================================
```

EXAMPLE 2
Generate a plot as an image file.

llvm-locstats --draw-plot file1.out
    [image]

EXAMPLE 3
Generate a plot as an image file showing the difference in the debug location coverage.

llvm-locstats --compare file1.out file1.withentryvals.out
    [image]

SEE ALSO
llvm-dwarfdump(1)

AUTHOR

Maintained by the LLVM Team (https://llvm.org/).

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