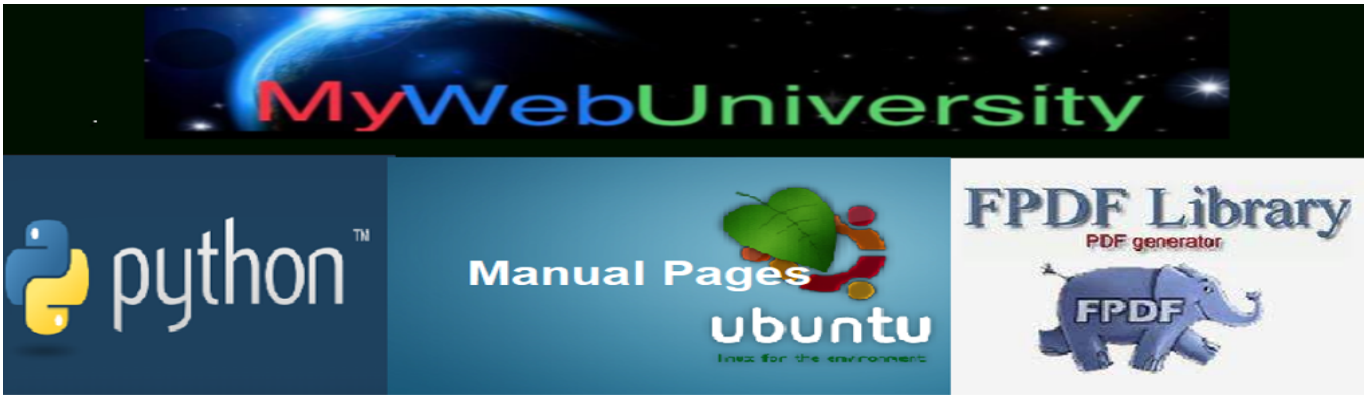

Rocky Enterprise Linux 9.2 Manual Pages on command 'gcov-tool-11.1'

$ man gcov-tool-11.1

GCOV-TOOL(1) GNU GCOV-TOOL(1)

NAME

gcov-tool - offline gcda profile processing tool

SYNOPSIS

gcov-tool [-v|--version] [-h|--help]

gcov-tool merge [merge-options] directory1 directory2

[-o|--output directory]

[-v|--verbose]

[-w|--weight w1,w2]

gcov-tool rewrite [rewrite-options] directory

[-n|--normalize long_long_value]

[-o|--output directory]

[-s|--scale float_or_simple-frac_value]

[-v|--verbose]

gcov-tool overlap [overlap-options] directory1 directory2

[-f|--function]

[-F|--fullname]

[-h|--hotonly]

[-o|--object]

[-t|--hot_threshold] float

[-v|--verbose]

DESCRIPTION

gcov-tool is an offline tool to process gcc's gcda profile files.

Current gcov-tool supports the following functionalities:

* merge two sets of profiles with weights.
* read one set of profile and rewrite profile contents. One can scale or normalize the count values.

Examples of the use cases for this tool are:

* Collect the profiles for different set of inputs, and use this tool to merge them. One can specify the weight to factor in the relative importance of each input.
* Rewrite the profile after removing a subset of the gcda files, while maintaining the consistency of the summary and the histogram.
* It can also be used to debug or libgcov code as the tools shares the majority code as the runtime library.

Note that for the merging operation, this profile generated offline may contain slight different values from the online merged profile. Here are a list of typical differences:

* histogram difference: This offline tool recomputes the histogram after merging the counters. The resulting histogram, therefore, is precise. The online merging does not have this capability -- the histogram is merged from two histograms and the result is an approximation.
* summary checksum difference: Summary checksum uses a CRC32 operation. The value depends on the link list order of gcov-info objects. This order is different in gcov-tool from that in the online merge. It's expected to have different summary checksums. It does not really matter as the compiler does not use this checksum anywhere.
* value profile counter values difference: Some counter values for value profile are runtime dependent, like heap addresses. It's normal to see some difference in these kind of counters.

OPTIONS

-h

--help

Display help about using gcov-tool (on the standard output), and exit without doing any further processing.

-v

--version

Display the gcov-tool version number (on the standard output), and exit without doing any further processing.

merge

Merge two profile directories.

-o directory

--output directory

Set the output profile directory. Default output directory name is merged_profile.

-v

--verbose

Set the verbose mode.

-w w1,w2

--weight w1,w2

Set the merge weights of the directory1 and directory2, respectively. The default weights are 1 for both.

rewrite

Read the specified profile directory and rewrite to a new directory.

-n long_long_value

--normalize <long_long_value>

Normalize the profile. The specified value is the max counter value in the new profile.

-o directory

--output directory

Set the output profile directory. Default output name is rewrite_profile.

-s float_or_simple-frac_value

--scale float_or_simple-frac_value

Scale the profile counters. The specified value can be in floating point value, or simple fraction value form, such 1, 2, 2/3, and 5/3.

-v

--verbose

Set the verbose mode.

overlap

Compute the overlap score between the two specified profile directories. The overlap score is computed based on the arc profiles. It is defined as the sum of min (p1_counter[i] / p1_sum_all, p2_counter[i] / p2_sum_all), for all arc counter i, where p1_counter[i] and p2_counter[i] are two matched counters and p1_sum_all and p2_sum_all

are the sum of counter values in profile 1 and profile 2, respectively.

-f

--function

Print function level overlap score.

-F

--fullname

Print full gcda filename.

-h

--hotonly

Only print info for hot objects/functions.

-o

--object

Print object level overlap score.

-t float

--hot_threshold <float>

Set the threshold for hot counter value.

-v

--verbose

Set the verbose mode.

SEE ALSO

gpl(7), gfdl(7), fsf-funding(7), gcc(1), gcov(1) and the Info entry for gcc.

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