# LNT RFC: LNT/Test-suite support for custom metrics and test parameterization

The following RFC describes two LNT enhancements:

- Custom (extensible) metrics
- Test parameterization

There are separate sections describing these proposals and patches can be independent. However, code examples, diagrams and screenshots in the document show both enhancements.

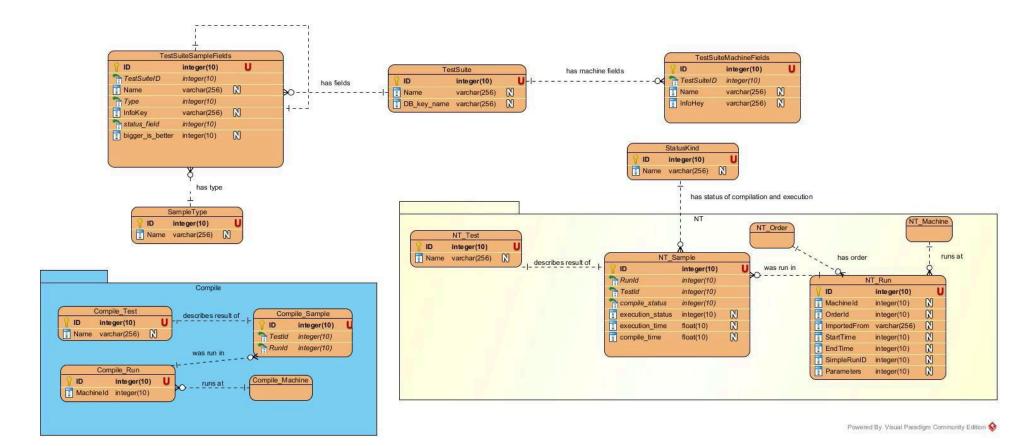
# LNT/Test-suite support for custom metrics

## Goal

Enable LNT support of custom metrics such as: user-defined run-time and static metrics (power, etc.) and LLVM pass statistic counters. Provide integration with LLVM testsuite to automatically collect LLVM statistic counters or custom metrics.

## Analysis of current Database

The following figure shows ER-diagram of the current database:



There are database tables describing common data for compile tests and nts tests, however, multiple tables for compile and nts tests are duplicating. Compile tests tables have the same structure as nts tests. Compile\_sample table has different fields - parameters of statistics(e.g. size bytes, mem bytes, sys time and etc). There are separate packages for each test suite.

## Limitations

It seems LNT supports only "simple" tests from the LLVM test suite. Nightly tests are not fully supported in trunk and data is missing in database. There were questions about nightly tests on the mailing list:

(https://groups.google.com/forum/#!searchin/llvm-dev/nightly\$20lnt/llvm-dev/DkpIGHy\_adk/CNeuT8OPalMJ,

 $\frac{https://groups.google.com/forum/\#!searchin/llvm-dev/nightly\$20lnt/llvm-dev/6zHKOV9Kc34/-U6\_Ohstb4oJ,}{https://groups.google.com/forum/\#!searchin/llvm-dev/lnt\$20nightly/llvm-dev/SUSvh3GTcbU/lau4WSQ\_mdwJ\_).}$ 

LNT supports some pre-defined metrics for the LLVM testsuite, but it is hard to add new custom metrics or even integrate other existing metrics from test suite.

## Migration

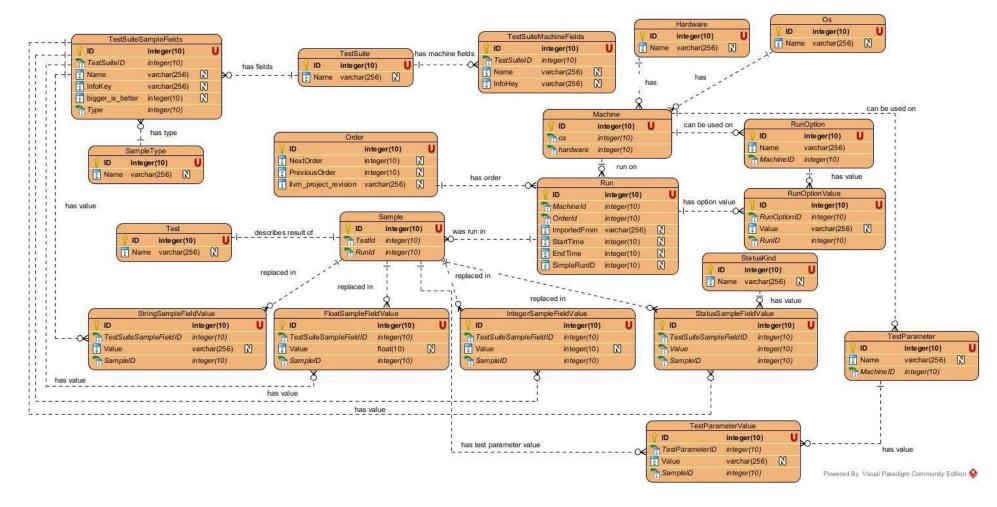
Migration 7 to 8 adds new table FieldChangev2. Old table FieldChange isn't removed from database, but it isn't used (should it be removed if there is no opportunity to access data?).

## **Proposal**

There are three ways to make database more flexible:

- 1. Keep package structure and create new tables for each package, connecting them with testsuite on the fly. Drawbacks are large number of duplicating tables (e.g. "package" for each test suite) and slow table creation or cross-testsuite queries.
- 2. Use semi-structured data for description of multiple fields inside single generic field. This can slow down queries and joins.
- 3. Remove hard-coded packages, introduce tables for common value types and intermediate tables (mapping values to samples). new structure should be suitable for all parameters described in report files of LLVM TestSuite.

I suggest tables re-design (option 3) with the following database structure:



There is limited set of value types in the LLVM TestSuite reports. Independent tables are created for each data type - string, integer, float and status. "Sample" table does not include testsuite-specific fields anymore, they are stored in "FieldValue" tables that contain SampleID field. This allows to eliminate duplicating tables. Moreover, sample table contains RunID with options that allow executing queries with run different options (HW, OS, etc.) and compare them.

This structure allows using LNT with any LLVM TestSuite tests and reports without modification of the database structure. In order to ease integration of LLVM test suite reports to LNT, "fields description" files are proposed. They describe mapping of report fields to LNT database fields and their properties. The following JSON example shows test suite fields:

```
"Fields" : [{
 "TestSuiteName": "Bytecode",
 "Type": "integer",
 "BiggerIsBetter": 0
 "TestSuiteName": "GCC",
 "Type": "real",
 "BiggerIsBetter": 0,
 "Name": "GCC time"
 "TestSuiteName": "JIT",
 "Type": "real",
 "BiggerIsBetter": 0,
 "Name": "JIT Compile time"
 "TestSuiteName": "GCC/LLC",
 "Type": "string",
 "BiggerIsBetter": 0
}]
```

There are new entities for "run options" and "test parameters". "Run options" are used for compilation/execution of all tests. Test parameters are supplied for each individual test that can be executed several times with different parameters during one run (e.g. different data sets).

## **Open Questions**

Migration

Currently testsuite name is unique. New scheme allows to define multiple "fields description" files for the same test suite, resulting in different data set for the same testsuite.

So there was change of testsuite table and migration from old database structure is impossible.

Another problem is modification of fields descriptions (new versions with new fields, etc.). If user want to save data, support for easy migration of data into new table might be required. It is subject to future improvements.

# LNT RFC: LNT/Test-suite Test Parameters

## Goals

- Global run option for the test suite run
- Parameterization of individual tests (repeat test with different parameters during one run).

# Proposal

Global run options are added to LNT using command-line option "--run-options=", that specifies path to file with run options. Test parameterization is required to analyze influence of test properties on benchmarking metrics.

Test parameters are described in file, that is added using variable FILEPARAMS in TestSuite makefiles. LLVM testsuite Makefile.programs and report modifications are required to repeat same test multiple times. Now report of TestSuite has test parameters which are added to name of test.

# For example,

| Program  | CC   | CC_Time | CC_Real_Time | Exec | Exec_Time | Exec_Real_Time |
|--|------|---------|--------------|------|-----------|----------------|
| MultiSource/Benchmarks/7zip/7zip-benchmark.(-analyzer-no-eag erly-trim-egraph -H)    |      | 61.148  | 64.6735      | pass | 0         | 0.0004         |
| MultiSource/Benchmarks/7zip/7zip-benchmark.(-fblocks)                                | *    | 61.16   | 64.6672      | pass | 0         | 0.0006         |
| MultiSource/Benchmarks/BitBench/drop3/drop3.(-analyzer-no-ea gerly-trim-egraph -H)   | pass | 0.056   | 0.0659       | pass | 0.26      | 0.2625         |
| MultiSource/Benchmarks/BitBench/drop3/drop3.(-fblocks)                               | pass | 0.056   | 0.0659       | pass | 0.26      | 0.2625         |
| MultiSource/Benchmarks/BitBench/five11/five11.(-analyzer-no-e agerly-trim-egraph -H) | pass | 0.084   | 0.0908       | pass | 1.636     | 1.6395         |
| MultiSource/Benchmarks/BitBench/five11/five11.(-fblocks)                             | pass | 0.084   | 0.0908       | pass | 1.636     | 1.6395         |

| MultiSource/Benchmarks/BitBench/uudecode/uudecode.(-analyze r-no-eagerly-trim-egraph -H) |   | 0.056  | 0.071   | pass | 0.072 | 0.0751 |
|--|---|--------|---------|------|-------|--------|
| MultiSource/Benchmarks/BitBench/uudecode/uudecode.(-fblocks)                             |   | 0.056  | 0.071   | pass | 0.072 | 0.0751 |
| MultiSource/Benchmarks/BitBench/uuencode/uuencode.(-analyze r-no-eagerly-trim-egraph -H) |   | 0.06   | 0.0747  | pass | 0.008 | 0.0128 |
| MultiSource/Benchmarks/BitBench/uuencode/uuencode.(-fblocks)                             |   | 0.06   | 0.0747  | pass | 0.008 | 0.0128 |
| MultiSource/Benchmarks/Bullet/bullet.(-analyzer-no-eagerly-trim -egraph -H)              |   | 40.572 | 42.5645 | *    | 0     | 0.0003 |
| MultiSource/Benchmarks/Bullet/bullet.(-fblocks)  | * | 40.54  | 42.5571 | *    | 0     | 0.0006 |

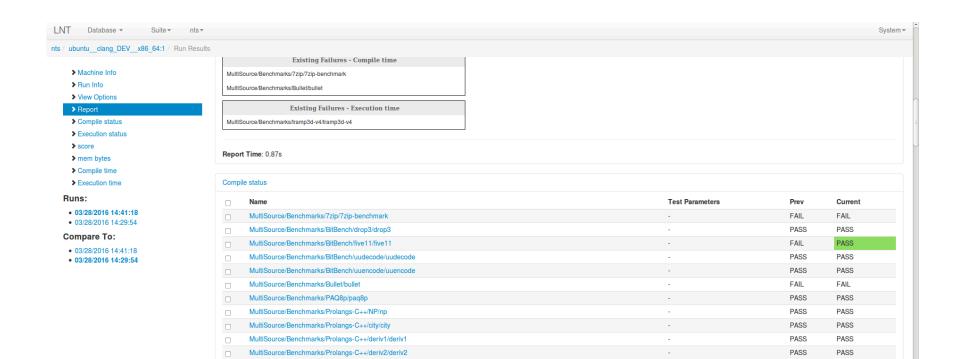
LNT parses report and stores test parameter values into database. Database structure is described earlier.

# Status

There is single patch combining all changes: database structure changes, new "summary" table showing current results without comparison with previous runs, support for global run option, test parameters files.

# Screenshots

Simple tests (standard nts)



MultiSource/Benchmarks/Prolangs-C++/employ/employ

MultiSource/Benchmarks/Prolangs-C++/garage/garage

MultiSource/Benchmarks/Prolangs-C++/objects/objects

MultiSource/Benchmarks/Prolangs-C++/ocean/ocean

MultiSource/Benchmarks/Prolangs-C++/office/office

MultiSource/Benchmarks/Prolangs-C++/primes/primes

MultiSource/Benchmarks/Prolangs-C++/shapes/shapes

MultiSource/Benchmarks/Prolangs-C++/family/family

MultiSource/Benchmarks/Prolangs-C++/fsm/fsm

MultiSource/Benchmarks/Prolangs-C++/life/life

PASS

PASS

**PASS** 

PASS

**PASS** 

**PASS** 

**PASS** 

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PASS

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PASS

PASS

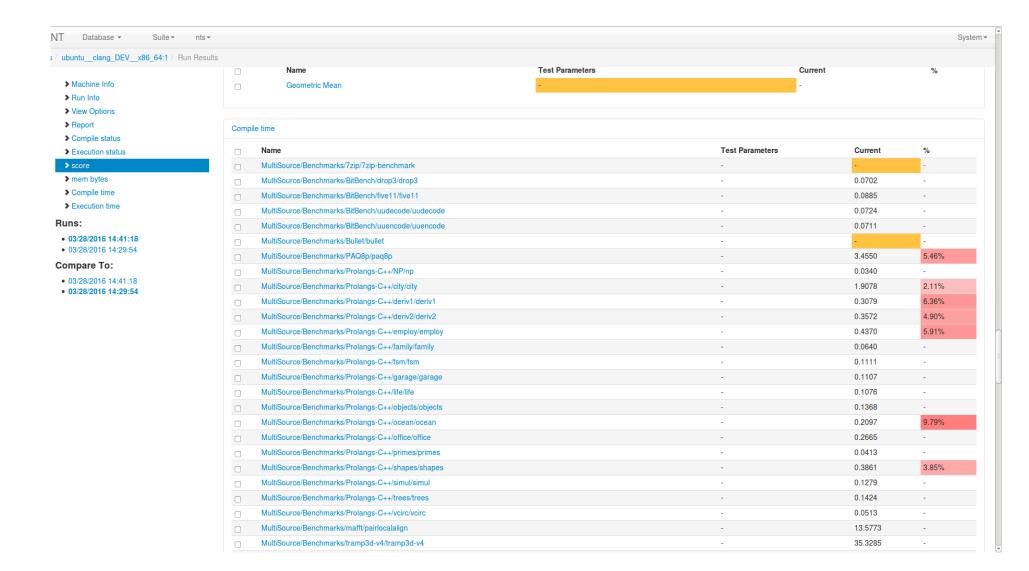
**PASS** 

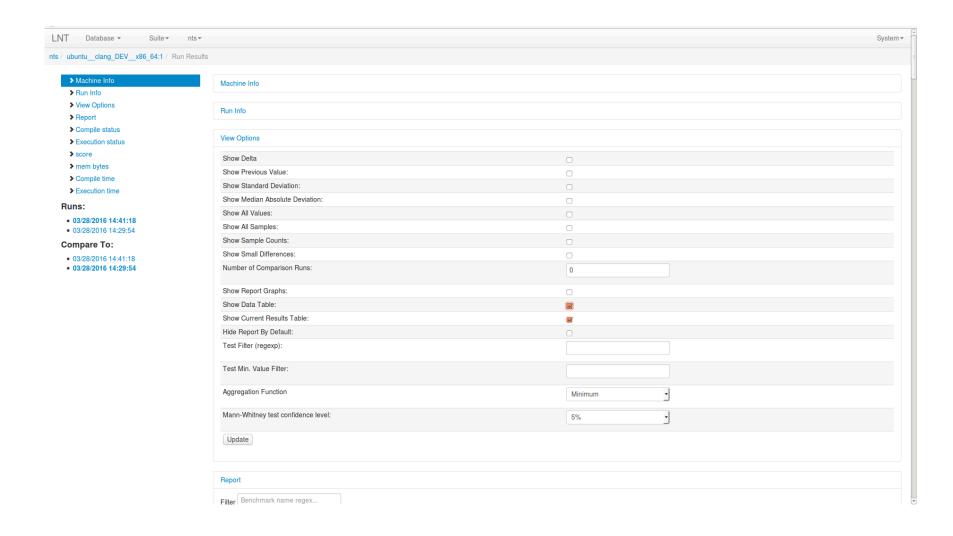
PASS

PASS

**PASS** 

PASS





LNT Database - Suite - nts - System -

nts / ubuntu\_\_clang\_DEV\_\_x86\_64:1 / Run Results

➤ Machine Info

> Run Info

View Options

> Report

➤ Compile status

> Execution status

> score

> mem bytes

> Compile time

> Execution time

Runs:

• 03/28/2016 14:41:18

• 03/28/2016 14:29:54

Compare To:

• 03/28/2016 14:41:18

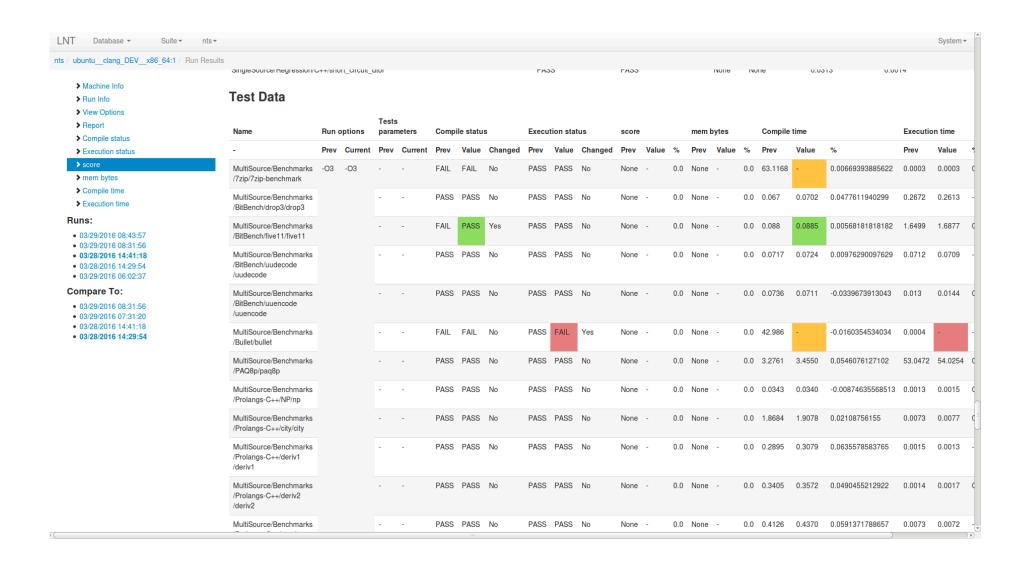
• 03/28/2016 14:29:54

## **Current tests results**

Graph

| Run options   | -O3            |                         |       |           |              |                |
|---|----------------|-------------------------|-------|-----------|--------------|----------------|
| Name  | Compile status | <b>Execution status</b> | score | mem bytes | Compile time | Execution time |
| MultiSource/Benchmarks/7zip/7zip-benchmark          | FAIL           | PASS                    | None  | None      | 63.5393      | 0.0003         |
| MultiSource/Benchmarks/BitBench/drop3/drop3         | PASS           | PASS                    | None  | None      | 0.0702       | 0.2613         |
| MultiSource/Benchmarks/BitBench/five11/five11       | PASS           | PASS                    | None  | None      | 0.0885       | 1.6877         |
| MultiSource/Benchmarks/BitBench/uudecode/uudecode   | PASS           | PASS                    | None  | None      | 0.0724       | 0.0709         |
| MultiSource/Benchmarks/BitBench/uuencode/uuencode   | PASS           | PASS                    | None  | None      | 0.0711       | 0.0144         |
| MultiSource/Benchmarks/Bullet/bullet                | FAIL           | FAIL                    | None  | None      | 42.2967      | 0.0003         |
| MultiSource/Benchmarks/PAQ8p/paq8p                  | PASS           | PASS                    | None  | None      | 3.455        | 54.0254        |
| MultiSource/Benchmarks/Prolangs-C++/NP/np           | PASS           | PASS                    | None  | None      | 0.034        | 0.0015         |
| MultiSource/Benchmarks/Prolangs-C++/city/city       | PASS           | PASS                    | None  | None      | 1.9078       | 0.0077         |
| MultiSource/Benchmarks/Prolangs-C++/deriv1/deriv1   | PASS           | PASS                    | None  | None      | 0.3079       | 0.0013         |
| MultiSource/Benchmarks/Prolangs-C++/deriv2/deriv2   | PASS           | PASS                    | None  | None      | 0.3572       | 0.0017         |
| MultiSource/Benchmarks/Prolangs-C++/employ/employ   | PASS           | PASS                    | None  | None      | 0.437        | 0.0072         |
| MultiSource/Benchmarks/Prolangs-C++/family/family   | PASS           | PASS                    | None  | None      | 0.064        | 0.0012         |
| MultiSource/Benchmarks/Prolangs-C++/fsm/fsm         | PASS           | PASS                    | None  | None      | 0.1111       | 0.0015         |
| MultiSource/Benchmarks/Prolangs-C++/garage/garage   | PASS           | PASS                    | None  | None      | 0.1107       | 0.0014         |
| MultiSource/Benchmarks/Prolangs-C++/life/life       | PASS           | PASS                    | None  | None      | 0.1076       | 0.951          |
| MultiSource/Benchmarks/Prolangs-C++/objects/objects | PASS           | PASS                    | None  | None      | 0.1368       | 0.0013         |
| MultiSource/Benchmarks/Prolangs-C++/ocean/ocean     | PASS           | PASS                    | None  | None      | 0.2097       | 0.0604         |
| MultiSource/Benchmarks/Prolangs-C++/office/office   | PASS           | PASS                    | None  | None      | 0.2665       | 0.0013         |
| MultiSource/Benchmarks/Prolangs-C++/primes/primes   | PASS           | PASS                    | None  | None      | 0.0413       | 0.2712         |
| MultiSource/Benchmarks/Prolangs-C++/shapes/shapes   | PASS           | PASS                    | None  | None      | 0.3861       | 0.0013         |
| MultiSource/Benchmarks/Prolangs-C++/simul/simul     | PASS           | PASS                    | None  | None      | 0.1279       | 0.0059         |
| MultiSource/Benchmarks/Prolangs-C++/trees/trees     | PASS           | PASS                    | None  | None      | 0.1424       | 0.0014         |
| MultiSource/Benchmarks/Prolangs-C++/vcirc/vcirc     | PASS           | PASS                    | None  | None      | 0.0513       | 0.0015         |
| MultiSource/Benchmarks/mafft/pairlocalalign         | PASS           | PASS                    | None  | None      | 13.5773      | 23.9962        |
| MultiSource/Benchmarks/tramp3d-v4/tramp3d-v4        | PASS           | FAIL                    | None  | None      | 35.3285      | 0.1422         |
| SingleSource/Regression/C++/2003-05-14-array-init   | PASS           | PASS                    | None  | None      | 0.0276       | 0.0016         |

(1)



LNT Database ▼ Suite ▼ nightly ▼

nightly / Recent Activity

System

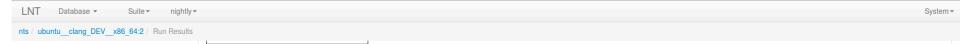
- > Active Machines
- > Recent Submissions

## **Active Machines**

| Machine                  | Latest Submission   | Results      |
|--------------------------|---------------------|--------------|
| ubuntu_clang_DEVx86_64:2 | 2016-03-29T08:22:12 | View Results |

## **Recent Submissions**

| Run Order | Started             | Duration | Machine                 | Results      |
|-----------|---------------------|----------|-------------------------|--------------|
| 1         | 2016-03-29T08:11:58 | 0:10:14  | ubuntuclang_DEVx86_64:2 | View Results |
| 0         | 2016-03-29T07:59:05 | 0:10:08  | ubuntuclang_DEVx86_64:2 | View Results |



- ➤ Machine Info
- > Run Info
- > View Options

### > Report

- > Bytecode
- > GCC time
- > JIT Compile time
- > GCC/LLC

#### Runs:

- 03/29/2016 08:11:58
- 03/29/2016 07:59:05

#### Compare To:

- 03/29/2016 08:11:58
- 03/29/2016 07:59:05

## **Tests Summary**



## **Run-Over-Run Changes Detail**



| MultiSource/Benchmarks/Prolangs-G++/life/life       |
|---|
| Added Tests - GCC time                              |
| MultiSource/Benchmarks/Prolangs-C++/NP/np           |
| MultiSource/Benchmarks/Prolangs-C++/deriv1/deriv1   |
| MultiSource/Benchmarks/Prolangs-C++/deriv2/deriv2   |
| MultiSource/Benchmarks/Prolangs-C++/family/family   |
| MultiSource/Benchmarks/Prolangs-C++/fsm/fsm         |
| MultiSource/Benchmarks/Prolangs-C++/garage/garage   |
| MultiSource/Benchmarks/Prolangs-C++/objects/objects |
| MultiSource/Benchmarks/Prolangs-C++/office/office   |
| MultiSource/Benchmarks/Prolangs-C++/shapes/shapes   |
| MultiSource/Benchmarks/Prolangs-C++/trees/trees     |
| MultiSource/Benchmarks/Prolangs-C++/vcirc/vcirc     |
| SingleSource/Regression/C++/2003-05-14-array-init   |
| SingleSource/Regression/C++/2003-05-14-expr_stmt    |

| IT Database ▼ Suite ▼        | nightly <del>-</del>   |                |                 |         |       |
|------------------------------|--|----------------|-----------------|---------|-------|
| ubuntuclang_DEVx86_64:2 / Ru |  |                |                 |         |       |
|                              | Oil 10 (D ) (D )   |                | ·               | 1010    |       |
| Machine Info                 | SingleSource/Regression/C++/pointer_   |                | -               | 1804    |       |
| ➤ Run Info                   | SingleSource/Regression/C++/short_cir  | rcuit_dtor     | -               | 1664    |       |
| > View Options > Report      | Geometric Mean   |                | 6480.9395       | -       |       |
| > Bytecode                   |  |                |                 |         |       |
| > GCC time                   | 000 !!   |                |                 |         |       |
| ➤ JIT Compile time           | GCC time   |                |                 |         |       |
| > GCC/LLC                    | Name   |                | Test Parameters | Current | %     |
| Runs:                        | MultiSource/Benchmarks/7zip/7zip-benchmarks/7zip/7zip/7zip-benchmarks/7zip/7zip/7zip/7zip/7zip/7zip/7zip/7zip | chmark         | -               | 8.0160  | 1.37% |
| • 03/29/2016 08:11:58        | MultiSource/Benchmarks/BitBench/drop   | 03/drop3       |                 | 0.2960  | -     |
| • 03/29/2016 07:59:05        | MultiSource/Benchmarks/BitBench/five1  | 1/five11       | -               | 1.6640  | -     |
| Compare To:                  | MultiSource/Benchmarks/BitBench/uude   | ecode/uudecode | -               | 0.0680  | -     |
| • 03/29/2016 08:11:58        | ☐ MultiSource/Benchmarks/BitBench/uuer   | ncode/uuencode | -               | 0.0160  | -     |
| • 03/29/2016 07:59:05        | ☐ MultiSource/Benchmarks/Bullet/bullet   |                |                 | 4.6720  | -     |
|                              | MultiSource/Benchmarks/PAQ8p/paq8p   |                | -               | 76.0760 | -     |
|                              | MultiSource/Benchmarks/Prolangs-C++  | /NP/np         | -               | 0.0000  | -     |
|                              | MultiSource/Benchmarks/Prolangs-C++  | /city/city     | -               | 0.0040  | -     |
|                              | MultiSource/Benchmarks/Prolangs-C++  | /deriv1/deriv1 |                 | 0.0000  | -     |
|                              | MultiSource/Benchmarks/Prolangs-C++  | /deriv2/deriv2 |                 | 0.0000  | -     |
|                              |  |                |                 |         |       |
|                              | MultiSource/Benchmarks/Prolangs-C++  | /employ/employ | -               | 0.0040  | -     |
|                              | <ul><li>MultiSource/Benchmarks/Prolangs-C++</li><li>MultiSource/Benchmarks/Prolangs-C++</li></ul>  |                | -               | 0.0040  | -     |

0.0000 1.1400

0.0000

0.0480

0.2640

0.0040

0.0000

0.0000

-2.73%

MultiSource/Benchmarks/Prolangs-C++/garage/garage

MultiSource/Benchmarks/Prolangs-C++/ocean/ocean

MultiSource/Benchmarks/Prolangs-C++/office/office

MultiSource/Benchmarks/Prolangs-C++/primes/primes

MultiSource/Benchmarks/Prolangs-C++/shapes/shapes

MultiSource/Benchmarks/Prolangs-C++/simul/simul

MultiSource/Benchmarks/Prolangs-C++/trees/trees

MultiSource/Benchmarks/Prolangs-C++/vcirc/vcirc

MultiSource/Benchmarks/Prolangs-C++/life/life

MultiSource/Benchmarks/Prolangs-C++/objects/objects

LNT Database - Suite - nightly nts / ubuntu\_\_clang\_DEV\_\_x86\_64:2 / Run Results

➤ Machine Info > Run Info

> View Options

> Report

> Bytecode > GCC time

> JIT Compile time

➤ GCC/LLC

#### Runs:

• 03/29/2016 08:11:58 • 03/29/2016 07:59:05

#### Compare To:

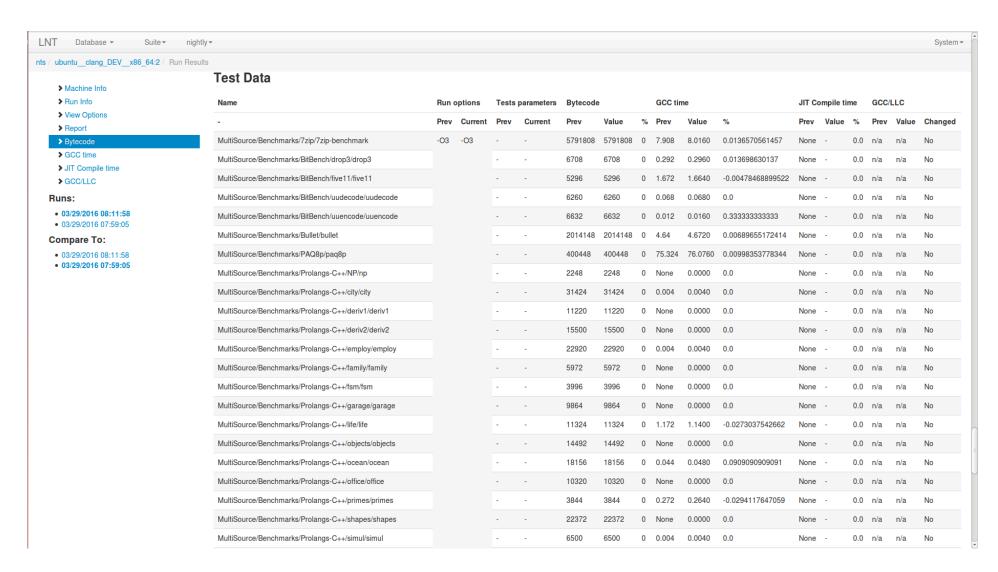
- 03/29/2016 08:11:5803/29/2016 07:59:05

### Graph

### **Current tests results**

| Run options   | -03      |          |                  |         |
|---|----------|----------|------------------|---------|
| Name  | Bytecode | GCC time | JIT Compile time | GCC/LLC |
| MultiSource/Benchmarks/7zip/7zip-benchmark          | 5791808  | 8.016    | None             | n/a     |
| MultiSource/Benchmarks/BitBench/drop3/drop3         | 6708     | 0.296    | None             | n/a     |
| MultiSource/Benchmarks/BitBench/five11/five11       | 5296     | 1.664    | None             | n/a     |
| MultiSource/Benchmarks/BitBench/uudecode/uudecode   | 6260     | 0.068    | None             | n/a     |
| MultiSource/Benchmarks/BitBench/uuencode/uuencode   | 6632     | 0.016    | None             | n/a     |
| MultiSource/Benchmarks/Bullet/bullet                | 2014148  | 4.672    | None             | n/a     |
| MultiSource/Benchmarks/PAQ8p/paq8p                  | 400448   | 76.076   | None             | n/a     |
| MultiSource/Benchmarks/Prolangs-C++/NP/np           | 2248     | 0.0      | None             | n/a     |
| MultiSource/Benchmarks/Prolangs-C++/city/city       | 31424    | 0.004    | None             | n/a     |
| MultiSource/Benchmarks/Prolangs-C++/deriv1/deriv1   | 11220    | 0.0      | None             | n/a     |
| MultiSource/Benchmarks/Prolangs-C++/deriv2/deriv2   | 15500    | 0.0      | None             | n/a     |
| MultiSource/Benchmarks/Prolangs-C++/employ/employ   | 22920    | 0.004    | None             | n/a     |
| MultiSource/Benchmarks/Prolangs-C++/family/family   | 5972     | 0.0      | None             | n/a     |
| MultiSource/Benchmarks/Prolangs-C++/fsm/fsm         | 3996     | 0.0      | None             | n/a     |
| MultiSource/Benchmarks/Prolangs-C++/garage/garage   | 9864     | 0.0      | None             | n/a     |
| MultiSource/Benchmarks/Prolangs-C++/life/life       | 11324    | 1.14     | None             | n/a     |
| MultiSource/Benchmarks/Prolangs-C++/objects/objects | 14492    | 0.0      | None             | n/a     |
| MultiSource/Benchmarks/Prolangs-C++/ocean/ocean     | 18156    | 0.048    | None             | n/a     |
| MultiSource/Benchmarks/Prolangs-C++/office          | 10320    | 0.0      | None             | n/a     |
| MultiSource/Benchmarks/Prolangs-C++/primes/primes   | 3844     | 0.264    | None             | n/a     |
| MultiSource/Benchmarks/Prolangs-C++/shapes/shapes   | 22372    | 0.0      | None             | n/a     |
| MultiSource/Benchmarks/Prolangs-C++/simul/simul     | 6500     | 0.004    | None             | n/a     |
| MultiSource/Benchmarks/Prolangs-C++/trees/trees     | 17392    | 0.0      | None             | n/a     |
| MultiSource/Benchmarks/Prolangs-C++/vcirc/vcirc     | 2792     | 0.0      | None             | n/a     |
| MultiSource/Benchmarks/mafft/pairlocalalign         | 597096   | 18.9     | None             | n/a     |
| MultiSource/Benchmarks/tramp3d-v4/tramp3d-v4        | 5171340  | 0.26     | None             | n/a     |

System -



Run options

LNT Database ▼ Suite ▼ nts ▼ System ▼

nts / ubuntu\_\_clang\_DEV\_\_x86\_64:1 / Run Results

> Machine Info

> Run Info

> View Options

> Report

> Compile status

> Execution status

> score

> mem bytes

> Compile time

> Execution time

Runs:

• 03/29/2016 08:31:56

• 03/28/2016 14:41:18

• 03/29/2016 07:31:20

• 03/28/2016 14:29:54

• 03/29/2016 06:02:37

Compare To:

• 03/29/2016 08:31:56 • 03/28/2016 14:41:18

03/28/2016 14:29:54
03/29/2016 06:02:37

Graph **Current tests results** 

| Run options   | -O3 -analyzer-no-ea | gerly-trim-egraph -fblocks |       |           |              |                |
|---|---------------------|----------------------------|-------|-----------|--------------|----------------|
| Name  | Compile status      | Execution status           | score | mem bytes | Compile time | Execution time |
| MultiSource/Benchmarks/7zip/7zip-benchmark          | FAIL                | PASS                       | None  | None      | 63.5225      | 0.0005         |
| MultiSource/Benchmarks/BitBench/drop3/drop3         | PASS                | PASS                       | None  | None      | 0.0713       | 0.2639         |
| MultiSource/Benchmarks/BitBench/five11/five11       | PASS                | PASS                       | None  | None      | 0.096        | 1.7131         |
| MultiSource/Benchmarks/BitBench/uudecode/uudecode   | PASS                | PASS                       | None  | None      | 0.076        | 0.0827         |
| MultiSource/Benchmarks/BitBench/uuencode/uuencode   | PASS                | PASS                       | None  | None      | 0.0809       | 0.0133         |
| MultiSource/Benchmarks/Bullet/bullet                | FAIL                | FAIL                       | None  | None      | 43.5009      | 0.0003         |
| MultiSource/Benchmarks/PAQ8p/paq8p                  | PASS                | PASS                       | None  | None      | 3.574        | 54.4492        |
| MultiSource/Benchmarks/Prolangs-C++/NP/np           | PASS                | PASS                       | None  | None      | 0.0347       | 0.0012         |
| MultiSource/Benchmarks/Prolangs-C++/city/city       | PASS                | PASS                       | None  | None      | 1.9649       | 0.0073         |
| MultiSource/Benchmarks/Prolangs-C++/deriv1/deriv1   | PASS                | PASS                       | None  | None      | 0.2846       | 0.0015         |
| MultiSource/Benchmarks/Prolangs-C++/deriv2/deriv2   | PASS                | PASS                       | None  | None      | 0.3804       | 0.0015         |
| MultiSource/Benchmarks/Prolangs-C++/employ/employ   | PASS                | PASS                       | None  | None      | 0.4145       | 0.0081         |
| MultiSource/Benchmarks/Prolangs-C++/family/family   | PASS                | PASS                       | None  | None      | 0.0653       | 0.0013         |
| MultiSource/Benchmarks/Prolangs-C++/fsm/fsm         | PASS                | PASS                       | None  | None      | 0.1063       | 0.0015         |
| MultiSource/Benchmarks/Prolangs-C++/garage/garage   | PASS                | PASS                       | None  | None      | 0.1108       | 0.0014         |
| MultiSource/Benchmarks/Prolangs-C++/life/life       | PASS                | PASS                       | None  | None      | 0.1022       | 0.919          |
| MultiSource/Benchmarks/Prolangs-C++/objects/objects | PASS                | PASS                       | None  | None      | 0.1368       | 0.0013         |
| MultiSource/Benchmarks/Prolangs-C++/ocean/ocean     | PASS                | PASS                       | None  | None      | 0.1938       | 0.0585         |
| MultiSource/Benchmarks/Prolangs-C++/office/office   | PASS                | PASS                       | None  | None      | 0.2758       | 0.0014         |
| MultiSource/Benchmarks/Prolangs-C++/primes/primes   | PASS                | PASS                       | None  | None      | 0.0455       | 0.2621         |
| MultiSource/Benchmarks/Prolangs-C++/shapes/shapes   | PASS                | PASS                       | None  | None      | 0.3852       | 0.0015         |
| MultiSource/Benchmarks/Prolangs-C++/simul/simul     | PASS                | PASS                       | None  | None      | 0.1203       | 0.0063         |
| MultiSource/Benchmarks/Prolangs-C++/trees/trees     | PASS                | PASS                       | None  | None      | 0.135        | 0.0014         |
| MultiSource/Benchmarks/Prolangs-C++/vcirc/vcirc     | PASS                | PASS                       | None  | None      | 0.0518       | 0.0013         |
| MultiSource/Benchmarks/mafft/pairlocalalign         | PASS                | PASS                       | None  | None      | 13.439       | 23.4994        |
| MultiSource/Benchmarks/tramp3d-v4/tramp3d-v4        | PASS                | FAIL                       | None  | None      | 37.0691      | 0.143          |

| buntuclang_DEVx86_64:1 / R  |   |        |  |       |         |       |           |         |       |          |         |       |       |     |      |       |        |         |        |                    |         |    |
|---|---|--------|--|-------|---------|-------|-----------|---------|-------|----------|---------|-------|-------|-----|------|-------|--------|---------|--------|--------------------|---------|----|
|   | olligieodulce/negression/o                                |        | _                                      |       |         |       |           |         | FAOO  |          |         | MOO   |       |     | INO  |       | INOLIG |         | 0.0001 | 0.0013             |         |    |
| Machine Info  | SingleSource/Regression/C                                 |        | _                                      |       |         |       |           |         | PASS  |          |         | PASS  |       |     | No   |       | None   |         | 0.043  | 0.0013             |         |    |
| > Run Info  | SingleSource/Regression/C                                 | ++/sho | rt_circuit_dtor                        |       |         |       |           |         | PASS  |          | F       | PASS  |       |     | No   | ne    | None   |         | 0.0334 | 0.0012             |         |    |
| > View Options  |   |        |  |       |         |       |           |         |       |          |         |       |       |     |      |       |        |         |        |                    |         |    |
| Report  | Test Data   |        |  |       |         |       |           |         |       |          |         |       |       |     |      |       |        |         |        |                    |         |    |
| Compile status  |   |        |  | Tests |         |       |           |         |       |          |         |       |       |     |      |       |        |         |        |                    |         |    |
| > Execution status > score  | Name  | Run    | ptions                                 |       | neters  | Compi | le status | s       | Execu | tion sta | tus     | score |       |     | mem  | bytes |        | Compile | time   |                    | Executi | on |
| > score > mem bytes   |   | Drov   | Current                                | Dross | Current | Prev  | Value     | Changed | Drov  | Value    | Changed | Prev  | Value | %   | Prev | Value | . 0/   | Prev    | Value  | %                  | Prev    | ,  |
| Compile time  | •   | riev   | Current                                | riev  | Current | riev  | value     | Changed | riev  | value    | Change  | riev  | value | 70  | riev | value | 70     | riev    | value  | /6                 | riev    |    |
| Execution time  | MultiSource/Benchmarks<br>/7zip/7zip-benchmark            | -O3    | -O3<br>-analyzer-                      | •     | -       | FAIL  | FAIL      | No      | PASS  | PASS     | No      | None  | -     | 0.0 | None | -     | 0.0    | 63.5393 | -      | -0.000264403290562 | 0.0003  |    |
| I <b>ns:</b><br>03/29/2016 08:43:57   | MultiSource/Benchmarks<br>/BitBench/drop3/drop3           |        | no-eagerly-<br>trim-egraph<br>-fblocks | -     | -       | PASS  | PASS      | No      | PASS  | PASS     | No      | None  | -     | 0.0 | None | -     | 0.0    | 0.0702  | 0.0713 | 0.0156695156695    | 0.2613  |    |
| 03/29/2016 08:31:56<br>03/28/2016 14:41:18<br>03/29/2016 07:31:20                               | MultiSource/Benchmarks<br>/BitBench/five11/five11         |        |  |       | -       | PASS  | PASS      | No      | PASS  | PASS     | No      | None  | -     | 0.0 | None | -     | 0.0    | 0.0885  | 0.0960 | 0.0847457627119    | 1.6877  |    |
| 03/28/2016 14:29:54<br>03/29/2016 06:02:37<br><b>mpare To:</b>                                  | MultiSource/Benchmarks /BitBench/uudecode /uudecode       |        |  | -     | -       | PASS  | PASS      | No      | PASS  | PASS     | No      | None  | -     | 0.0 | None | -     | 0.0    | 0.0724  | 0.0760 | 0.0497237569061    | 0.0709  |    |
| 03/29/2016 08:43:57<br>03/29/2016 08:31:56<br><b>03/28/2016 14:41:18</b><br>03/28/2016 14:29:54 | MultiSource/Benchmarks<br>/BitBench/uuencode<br>/uuencode |        |  | -     |         | PASS  | PASS      | No      | PASS  | PASS     | No      | None  | -     | 0.0 | None | -     | 0.0    | 0.0711  | 0.0809 | 0.137834036568     | 0.0144  |    |
| 03/29/2016 06:02:37   | MultiSource/Benchmarks<br>/Bullet/bullet                  |        |  | -     | -       | FAIL  | FAIL      | No      | FAIL  | FAIL     | No      | None  | -     | 0.0 | None | -     | 0.0    | 42.2967 | -      | 0.0284703061941    | 0.0003  | 1  |
|   | MultiSource/Benchmarks<br>/PAQ8p/paq8p                    |        |  | -     | -       | PASS  | PASS      | No      | PASS  | PASS     | No      | None  | -     | 0.0 | None | -     | 0.0    | 3.455   | 3.5740 | 0.0344428364689    | 54.0254 | ļ  |
|   | MultiSource/Benchmarks<br>/Prolangs-C++/NP/np             |        |  | -     | -       | PASS  | PASS      | No      | PASS  | PASS     | No      | None  | -     | 0.0 | None | -     | 0.0    | 0.034   | 0.0347 | 0.0205882352941    | 0.0015  |    |
|   | MultiSource/Benchmarks<br>/Prolangs-C++/city/city         |        |  | -     | -       | PASS  | PASS      | No      | PASS  | PASS     | No      | None  | -     | 0.0 | None | -     | 0.0    | 1.9078  | 1.9649 | 0.0299297620296    | 0.0077  |    |
|   | MultiSource/Benchmarks<br>/Prolangs-C++/deriv1<br>/deriv1 |        |  | -     | -       | PASS  | PASS      | No      | PASS  | PASS     | No      | None  | -     | 0.0 | None | -     | 0.0    | 0.3079  | 0.2846 | -0.0756739201039   | 0.0013  |    |
|   | MultiSource/Benchmarks /Prolangs-C++/deriv2               |        |  | -     | -       | PASS  | PASS      | No      | PASS  | PASS     | No      | None  | -     | 0.0 | None | -     | 0.0    | 0.3572  | 0.3804 | 0.0649496080627    | 0.0017  |    |

Test parameters



### Runs:

• 03/29/2016 08:43:57

Compile status

➤ Compile time
➤ Execution time

- 03/29/2016 08:31:56
- 03/28/2016 14:41:18
- 03/29/2016 07:31:20
- 03/28/2016 14:29:5403/29/2016 06:02:37

#### Compare To:

- 03/29/2016 08:43:57
- 03/29/2016 08:31:56
- 03/28/2016 14:41:18
- 03/29/2016 07:31:20
- 03/28/2016 14:29:5403/29/2016 06:02:37

| Name  | Test Parameters                     | Prev | Current |
|---|-------------------------------------|------|---------|
| MultiSource/Benchmarks/7zip/7zip-benchmark        | -H -analyzer-no-eagerly-trim-egraph | -    | FAIL    |
| MultiSource/Benchmarks/7zip/7zip-benchmark        | -fblocks                            | -    | FAIL    |
| MultiSource/Benchmarks/BitBench/drop3/drop3       | -H -analyzer-no-eagerly-trim-egraph | -    | PASS    |
| MultiSource/Benchmarks/BitBench/drop3/drop3       | -fblocks                            | -    | PASS    |
| MultiSource/Benchmarks/BitBench/five11/five11     | -H -analyzer-no-eagerly-trim-egraph | -    | PASS    |
| MultiSource/Benchmarks/BitBench/five11/five11     | -fblocks                            | -    | PASS    |
| MultiSource/Benchmarks/BitBench/uudecode/uudecode | -H -analyzer-no-eagerly-trim-egraph | -    | PASS    |
| MultiSource/Benchmarks/BitBench/uudecode/uudecode | -fblocks                            | -    | PASS    |
| MultiSource/Benchmarks/BitBench/uuencode/uuencode | -H -analyzer-no-eagerly-trim-egraph | -    | PASS    |
| MultiSource/Benchmarks/BitBench/uuencode/uuencode | -fblocks                            | -    | PASS    |
| MultiSource/Benchmarks/Bullet/bullet              | -H -analyzer-no-eagerly-trim-egraph | -    | FAIL    |
| MultiSource/Benchmarks/Bullet/bullet              | -fblocks                            | -    | FAIL    |
| MultiSource/Benchmarks/PAQ8p/paq8p                | -H -analyzer-no-eagerly-trim-egraph | -    | PASS    |
| MultiSource/Benchmarks/PAQ8p/paq8p                | -fblocks                            | -    | PASS    |
| MultiSource/Benchmarks/Prolangs-C++/NP/np         | -H -analyzer-no-eagerly-trim-egraph | -    | PASS    |
| MultiSource/Benchmarks/Prolangs-C++/NP/np         | -fblocks                            | -    | PASS    |
| MultiSource/Benchmarks/Prolangs-C++/city/city     | -H -analyzer-no-eagerly-trim-egraph | -    | PASS    |
| MultiSource/Benchmarks/Prolangs-C++/city/city     | -fblocks                            | -    | PASS    |
| MultiSource/Benchmarks/Prolangs-C++/deriv1/deriv1 | -H -analyzer-no-eagerly-trim-egraph | -    | PASS    |

-fblocks

-H -analyzer-no-eagerly-trim-egraph

PASS

| LNT Database ▼ Suite ▼   | nts▼  |                                     |          |
|--|---|-------------------------------------|----------|
| ts / ubuntuclang_DEVx86_64:1 / Rt                                    | un Results  |                                     |          |
| > Machine Info   | Compile time  |                                     |          |
| > Run Info   | □ Name  | Test Parameters                     | Current  |
| > View Options   | ☐ MultiSource/Benchmarks/7zip/7zip-benchmark        | -H -analyzer-no-eagerly-trim-egraph | -        |
| ➤ Report   | ☐ MultiSource/Benchmarks/7zip/7zip-benchmark        | -fblocks                            | -        |
| ➤ Compile status ➤ Execution status                                  | MultiSource/Benchmarks/BitBench/drop3/drop3         | -H -analyzer-no-eagerly-trim-egraph | 0.0659   |
| > score  | MultiSource/Benchmarks/BitBench/drop3/drop3         | -fblocks                            | 0.0659   |
| > mem bytes  | MultiSource/Benchmarks/BitBench/five11/five11       | -H -analyzer-no-eagerly-trim-egraph | 0.0908 - |
| > Compile time   | MultiSource/Benchmarks/BitBench/five11/five11       | -fblocks                            | 0.0908   |
| > Execution time   | ☐ MultiSource/Benchmarks/BitBench/uudecode/uudecode | -H -analyzer-no-eagerly-trim-egraph | 0.0710 - |
| Runs:  | MultiSource/Benchmarks/BitBench/uudecode/uudecode   | -fblocks                            | 0.0710 - |
| • 03/29/2016 08:43:57  | MultiSource/Benchmarks/BitBench/uuencode/uuencode   | -H -analyzer-no-eagerly-trim-egraph | 0.0747 - |
| • 03/29/2016 08:31:56  | MultiSource/Benchmarks/BitBench/uuencode/uuencode   | -fblocks                            | 0.0747 - |
| <ul> <li>03/28/2016 14:41:18</li> <li>03/29/2016 07:31:20</li> </ul> | ☐ MultiSource/Benchmarks/Bullet/bullet              | -H -analyzer-no-eagerly-trim-egraph | -        |
| • 03/28/2016 14:29:54  | MultiSource/Benchmarks/Bullet/bullet                | -fblocks                            |          |
| • 03/29/2016 06:02:37  | ☐ MultiSource/Benchmarks/PAQ8p/paq8p                | -H -analyzer-no-eagerly-trim-egraph | 3.2942   |
| Compare To:  | MultiSource/Benchmarks/PAQ8p/paq8p                  | -fblocks                            | 3.2942 - |
| • 03/29/2016 08:43:57  | ☐ MultiSource/Benchmarks/Prolangs-C++/NP/np         | -H -analyzer-no-eagerly-trim-egraph | 0.0340 - |
| <ul> <li>03/29/2016 08:31:56</li> <li>03/28/2016 14:41:18</li> </ul> | MultiSource/Benchmarks/Prolangs-C++/NP/np           | -fblocks                            | 0.0340 - |
| • 03/29/2016 07:31:20  | ☐ MultiSource/Benchmarks/Prolangs-C++/city/city     | -H -analyzer-no-eagerly-trim-egraph | 1.8729   |
| <ul><li>03/28/2016 14:29:54</li><li>03/29/2016 06:02:37</li></ul>    | ☐ MultiSource/Benchmarks/Prolangs-C++/city/city     | -fblocks                            | 1.8729   |
|  | MultiSource/Benchmarks/Prolangs-C++/deriv1/deriv1   | -H -analyzer-no-eagerly-trim-egraph | 0.2878 - |
|  | MultiSource/Benchmarks/Prolangs-C++/deriv1/deriv1   | -fblocks                            | 0.2878 - |
|  | ☐ MultiSource/Benchmarks/Prolangs-C++/deriv2/deriv2 | -H -analyzer-no-eagerly-trim-egraph | 0.3420 - |
|  | MultiSource/Benchmarks/Prolangs-C++/deriv2/deriv2   | -fblocks                            | 0.3420 - |
|  | MultiSource/Benchmarks/Prolangs-C++/employ/employ   | -H -analyzer-no-eagerly-trim-egraph | 0.4248 - |
|  | MultiSource/Benchmarks/Prolangs-C++/employ/employ   | -fblocks                            | 0.4248 - |
|  | MultiSource/Benchmarks/Prolangs-C++/family/family   | -H -analyzer-no-eagerly-trim-egraph | 0.0649   |
|  | ☐ MultiSource/Benchmarks/Prolangs-C++/family/family | -fblocks                            | 0.0649 - |
|  | ☐ MultiSource/Benchmarks/Prolangs-C++/fsm/fsm       | -H -analyzer-no-eagerly-trim-egraph | 0.1061 - |
|  | MultiSource/Benchmarks/Prolangs-C++/fsm/fsm         | -fblocks                            | 0.1061 - |
|  | MultiSource/Benchmarks/Prolangs-C++/garage/garage   | -H -analyzer-no-eagerly-trim-egraph | 0.1063 - |
|  | — Multipular (Paralamenta (Paralamenta)             | #-11                                | 0.4000   |

|  |   |             |                |   |   |   |              | Sys            |  |  |  |  |  |  |  |
|--|---|-------------|----------------|---|---|---|--------------|----------------|--|--|--|--|--|--|--|
| Run Results  |   |             |                |   |   |   |              |                |  |  |  |  |  |  |  |
| Current tests results                                | Current tests results   |             |                |   |   |   |              |                |  |  |  |  |  |  |  |
| Run options  | -03   |             |                |   |   |   |              |                |  |  |  |  |  |  |  |
| Name   | -H -analyzer-no-eagerly-trim-egraph   | -fblocks    | Compile status | Execution status  | score   | mem bytes   | Compile time | Execution time |  |  |  |  |  |  |  |
| MultiSource/Benchmarks/7zip/7zip-benchmark           | + +   | -           | FAIL           | PASS  | None  | None  | 64.6735      | 0.0004         |  |  |  |  |  |  |  |
|  |   | +           | FAIL           | PASS  | None  | None  | 64.6672      | 0.0006         |  |  |  |  |  |  |  |
| MultiSource/Benchmarks/BitBench/drop3/drop3          | + +   | -           | PASS           | PASS  | None  | None  | 0.0659       | 0.2625         |  |  |  |  |  |  |  |
|  |   | +           | PASS           | PASS  | None  | None  | 0.0659       | 0.2625         |  |  |  |  |  |  |  |
| MultiSource/Benchmarks/BitBench/five11/five11        | + +   | -           | PASS           | PASS  | None  | None  | 0.0908       | 1.6395         |  |  |  |  |  |  |  |
|  |   | +           | PASS           | PASS  | None  | None  | 0.0908       | 1.6395         |  |  |  |  |  |  |  |
| MultiSource/Benchmarks/BitBench/uudecode/uudecode    | + +   | -           | PASS           | PASS  | None  | None  | 0.071        | 0.0751         |  |  |  |  |  |  |  |
|  |   | +           | PASS           | PASS  | None  | None  | 0.071        | 0.0751         |  |  |  |  |  |  |  |
| MultiSource/Benchmarks/BitBench/uuencode/uuencode    | + +   | -           | PASS           | PASS  | None  | None  | 0.0747       | 0.0128         |  |  |  |  |  |  |  |
|  |   | +           | PASS           | PASS  | None  | None  | 0.0747       | 0.0128         |  |  |  |  |  |  |  |
| MultiSource/Benchmarks/Bullet/bullet                 | + +   | -           | FAIL           | FAIL  | None  | None  | 42.5645      | 0.0003         |  |  |  |  |  |  |  |
|  |   | +           | FAIL           | FAIL  | None  | None  | 42.5571      | 0.0006         |  |  |  |  |  |  |  |
| MultiSource/Benchmarks/PAQ8p/paq8p                   | + +   | -           | PASS           | PASS  | None  | None  | 3.2942       | 52.5658        |  |  |  |  |  |  |  |
|  |   | +           | PASS           | PASS  | None  | None  | 3.2942       | 52.5658        |  |  |  |  |  |  |  |
| MultiSource/Benchmarks/Prolangs-C++/NP/np            | + +   |             | PASS           | PASS  | None  | None  | 0.034        | 0.0014         |  |  |  |  |  |  |  |
| ·  |   | +           | PASS           | PASS  | None  | None  | 0.034        | 0.0014         |  |  |  |  |  |  |  |
| MultiSource/Benchmarks/Prolangs-C++/city/city        | + +   |             | PASS           | PASS  | None  | None  | 1.8729       | 0.0075         |  |  |  |  |  |  |  |
| ,  |   | +           |                |   |   |   |              | 0.0075         |  |  |  |  |  |  |  |
| MultiSource/Benchmarks/Prolangs-C++/deriv1/deriv1    | + +   | -           |                |   |   |   |              | 0.0015         |  |  |  |  |  |  |  |
|  |   | +           |                | PASS  |   |   |              | 0.0015         |  |  |  |  |  |  |  |
| MultiSource/Benchmarks/Prolangs-C++/deriv2/deriv2    | + +   | -           |                |   |   |   |              | 0.0015         |  |  |  |  |  |  |  |
|  |   | +           |                |   |   |   |              | 0.0015         |  |  |  |  |  |  |  |
| MultiSource/Renchmarks/Prolangs-C++/employ/employ    |   |             |                |   |   |   |              | 0.007          |  |  |  |  |  |  |  |
| Malacouros/Bonolinianos/Totaligo Officialpioy/employ |   |             |                |   |   |   |              | 0.007          |  |  |  |  |  |  |  |
| MultiSource/Renchmarks/Prolange-C++/family/family    |   |             |                |   |   |   |              | 0.007          |  |  |  |  |  |  |  |
| Municource/penolinaris/r rolangs-o++/ramily/ramily   |   |             |                |   |   |   |              | 0.0015         |  |  |  |  |  |  |  |
| MultiSauraa/Panahmarka/Pralanga C /tam/tam           |   | +           |                |   |   |   |              | 0.0015         |  |  |  |  |  |  |  |
| widingource/penchinarks/Prolangs-C++/Isin/ISIN       |   | •           |                |   |   |   |              | 0.0015         |  |  |  |  |  |  |  |
|  | Name  MultiSource/Benchmarks/7zip/7zip-benchmark  MultiSource/Benchmarks/BitBench/drop3/drop3  MultiSource/Benchmarks/BitBench/five11/five11  MultiSource/Benchmarks/BitBench/uudecode/uudecode  MultiSource/Benchmarks/BitBench/uuencode/uuencode  MultiSource/Benchmarks/BitBench/uuencode/uuencode  MultiSource/Benchmarks/Bullet/bullet  MultiSource/Benchmarks/PAQ8p/paq8p | Run options | Run options    | Current tests results           Run options         -O3           Name         -H -analyzer-no-eagerly-trim-egraph         -fblocks         Compile status           MultiSource/Benchmarks/7zip/7zip-benchmark         + + FAIL         + - FAIL | Current tests results         -03           Name         +1 - Inalyzer-no-eagerly-trim-egraph         -1blocks or Compile status         Execution status           MultiSource/Benchmarks/7zip7zip-benchmark         + 1 - Inalyzer-no-eagerly-trim-egraph         -1blocks or Compile status         Execution status           MultiSource/Benchmarks/BitBench/drop3/drop3         + 1 - Inalyzer-no-eagerly-trim-egraph         -1blocks or FAIL         PASS           MultiSource/Benchmarks/BitBench/drop3/drop3         + 1 - Inalyzer-no-eagerly-trim-egraph         - FAIL         PASS           MultiSource/Benchmarks/BitBench/drop3/drop3         + 1 - Inalyzer-no-eagerly-trim-egraph         - PASS         PASS           MultiSource/Benchmarks/BitBench/drop3/drop3         + 1 - Inalyzer-no-eagerly-trim-egraph         - PASS         PASS           MultiSource/Benchmarks/BitBench/drop3/drop3         + 1 - Inalyzer-no-eagerly-trim-egraph         + PASS         PASS           MultiSource/Benchmarks/BitBench/drop3/drop3         + 1 - Inalyzer-no-eagerly-trim-egraph         + 1 - Inalyzer-no-eagerly-trim-eg | Numbround   Num | Name         | Run options    |  |  |  |  |  |  |  |

nts / ubuntu\_\_clang\_DEV\_\_x86\_64:1 / Run Results

- ➤ Machine Info
- > Run Info
- View Options
- > Report
- > Compile status
- > Execution status

# > score

- > mem bytes
- > Compile time
- > Execution time

#### Runs:

- 03/29/2016 08:43:57
- 03/29/2016 08:31:56
- 03/28/2016 14:41:18
- 03/29/2016 07:31:20
- 03/28/2016 14:29:5403/29/2016 06:02:37
- Compare To:

#### • 03/29/2016 08:43:57

- 03/29/2016 08:31:56
- 03/28/2016 14:41:18
- 03/29/2016 07:31:20
- 03/28/2016 14:29:54
- 03/29/2016 06:02:37

## **Test Data**

| Name  | Run options                              |         | Tests parameters                               |  | Compile status |       | Execution status |      | score |         |      | mem bytes |      |      | Compile time |      |        | Execution time |      |        |        |     |
|---|--|---------|--|--|----------------|-------|------------------|------|-------|---------|------|-----------|------|------|--------------|------|--------|----------------|------|--------|--------|-----|
| -   | Prev                                     | Current | Prev   | Current  | Prev           | Value | Changed          | Prev | Value | Changed | Prev | Value     | %    | Prev | Value        | %    | Prev   | Value          | %    | Prev   | Value  | %   |
|   | -analyzer-<br>no-eagerly-<br>trim-egraph | -O3     | -  | -H<br>-analyzer-<br>no-eagerly-<br>trim-egraph | None           | FAIL  | Yes              | None | PASS  | Yes     | None | -         | 0.0  | None | -            | 0.0  | None   |                | 0.0  | None   | 0.0004 | 0.0 |
|   | -fblocks                                 |         | -  | -fblocks                                       | None           | FAIL  | Yes              | None | PASS  | Yes     | None | -         | 0.0  | None | -            | 0.0  | None   | -              | 0.0  | None   | 0.0006 | 0.0 |
| MultiSource/Benchmarks<br>/BitBench/drop3/drop3           | S  |         | -  | -H<br>-analyzer-<br>no-eagerly-<br>trim-egraph | None           | PASS  | Yes              | None | PASS  | Yes     | None | -         | 0.0  | None | -            | 0.0  | None   | 0.0659         | 0.0  | None   | 0.2625 | 0.0 |
|   |  | -       | -fblocks                                       | None   | PASS           | Yes   | None             | PASS | Yes   | None    | -    | 0.0       | None | -    | 0.0          | None | 0.0659 | 0.0            | None | 0.2625 | 0.0    |     |
| MultiSource/Benchmarks<br>/BitBench/five11/five11         |  |         | -  | -H<br>-analyzer-<br>no-eagerly-<br>trim-egraph | None           | PASS  | Yes              | None | PASS  | Yes     | None | -         | 0.0  | None | -            | 0.0  | None   | 0.0908         | 0.0  | None   | 1.6395 | 0.0 |
|   |  |         | -  | -fblocks                                       | None           | PASS  | Yes              | None | PASS  | Yes     | None | -         | 0.0  | None | -            | 0.0  | None   | 0.0908         | 0.0  | None   | 1.6395 | 0.0 |
| MultiSource/Benchmarks<br>/BitBench/uudecode<br>/uudecode |  |         | -  | -H<br>-analyzer-<br>no-eagerly-<br>trim-egraph | None           | PASS  | Yes              | None | PASS  | Yes     | None | -         | 0.0  | None | -            | 0.0  | None   | 0.0710         | 0.0  | None   | 0.0751 | 0.0 |
|   |  |         | -  | -fblocks                                       | None           | PASS  | Yes              | None | PASS  | Yes     | None | -         | 0.0  | None | -            | 0.0  | None   | 0.0710         | 0.0  | None   | 0.0751 | 0.0 |
| MultiSource/Benchmarks<br>/BitBench/uuencode<br>/uuencode |  | -       | -H<br>-analyzer-<br>no-eagerly-<br>trim-egraph | None   | PASS           | Yes   | None             | PASS | Yes   | None    | -    | 0.0       | None | -    | 0.0          | None | 0.0747 | 0.0            | None | 0.0128 | 0.0    |     |
|   |  |         | -  | -fblocks                                       | None           | PASS  | Yes              | None | PASS  | Yes     | None | -         | 0.0  | None | -            | 0.0  | None   | 0.0747         | 0.0  | None   | 0.0128 | 0.0 |
| MultiSource/Benchmarks<br>/Bullet/bullet                  |  |         | -  | -H<br>-analyzer-<br>no-eagerly-<br>trim-egraph | None           | FAIL  | Yes              | None | FAIL  | Yes     | None | -         | 0.0  | None | -            | 0.0  | None   | -              | 0.0  | None   | -      | 0.0 |
|   |  |         | -  | -fblocks                                       | None           | FAII  | Yes              | None | FAII  | Yes     | None | -         | 0 0  | None | -            | 0 0  | None   |                | 0 0  | None   |        | 0.0 |