
Subject: [PATCH 3/3] perf tools: Add ability to synthesize event according to a sample

Posted by [Arnaldo Carvalho de M\[2\]](#) on Mon, 12 Dec 2011 13:26:09 GMT

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From: Andrew Vagin <avagin@openvz.org>

It's the counterpart of perf_session__parse_sample.

v2: fixed mistakes found by David Ahern.

v3: s/data/sample/

s/perf_event__change_sample/perf_event__synthesize_sample

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tools/perf/util/event.h | 3 ++

tools/perf/util/evsel.c | 79 ++++++++++++++++++++++++++++++++++++++

tools/perf/util/session.h | 8 ++++

3 files changed, 90 insertions(+), 0 deletions(-)

diff --git a/tools/perf/util/event.h b/tools/perf/util/event.h

index 0d80201..cbdeaad 100644

--- a/tools/perf/util/event.h

+++ b/tools/perf/util/event.h

@@ -199,6 +199,9 @@ const char *perf_event__name(unsigned int id);

int perf_event__parse_sample(const union perf_event *event, u64 type,

int sample_size, bool sample_id_all,

struct perf_sample *sample, bool swapped);

+int perf_event__synthesize_sample(union perf_event *event, u64 type,

+ const struct perf_sample *sample,

+ bool swapped);

size_t perf_event__fprintf_comm(union perf_event *event, FILE *fp);

size_t perf_event__fprintf_mmap(union perf_event *event, FILE *fp);

diff --git a/tools/perf/util/evsel.c b/tools/perf/util/evsel.c

index ee68d69..4a8c8b0 100644

--- a/tools/perf/util/evsel.c

+++ b/tools/perf/util/evsel.c

@@ -574,3 +574,82 @@ int perf_event__parse_sample(const union perf_event *event, u64 type,

```

    return 0;
}
+
+int perf_event__synthesize_sample(union perf_event *event, u64 type,
+    const struct perf_sample *sample,
+    bool swapped)
+{
+    u64 *array;
+
+    /*
+     * used for cross-endian analysis. See git commit 65014ab3
+     * for why this goofiness is needed.
+     */
+    union {
+        u64 val64;
+        u32 val32[2];
+    } u;
+
+    array = event->sample.array;
+
+    if (type & PERF_SAMPLE_IP) {
+        event->ip.ip = sample->ip;
+        array++;
+    }
+
+    if (type & PERF_SAMPLE_TID) {
+        u.val32[0] = sample->pid;
+        u.val32[1] = sample->tid;
+        if (swapped) {
+            /*
+             * Inverse of what is done in perf_event__parse_sample
+             */
+            u.val32[0] = bswap_32(u.val32[0]);
+            u.val32[1] = bswap_32(u.val32[1]);
+            u.val64 = bswap_64(u.val64);
+        }
+
+        *array = u.val64;
+        array++;
+    }
+
+    if (type & PERF_SAMPLE_TIME) {
+        *array = sample->time;
+        array++;
+    }
+
+    if (type & PERF_SAMPLE_ADDR) {

```

```

+ *array = sample->addr;
+ array++;
+ }
+
+ if (type & PERF_SAMPLE_ID) {
+ *array = sample->id;
+ array++;
+ }
+
+ if (type & PERF_SAMPLE_STREAM_ID) {
+ *array = sample->stream_id;
+ array++;
+ }
+
+ if (type & PERF_SAMPLE_CPU) {
+ u.val32[0] = sample->cpu;
+ if (swapped) {
+ /*
+  * Inverse of what is done in perf_event__parse_sample
+  */
+ u.val32[0] = bswap_32(u.val32[0]);
+ u.val64 = bswap_64(u.val64);
+ }
+ *array = u.val64;
+ array++;
+ }
+
+ if (type & PERF_SAMPLE_PERIOD) {
+ *array = sample->period;
+ array++;
+ }
+
+ return 0;
+}
diff --git a/tools/perf/util/session.h b/tools/perf/util/session.h
index 30e9c6b6..fb69612 100644
--- a/tools/perf/util/session.h
+++ b/tools/perf/util/session.h
@@ -134,6 +134,14 @@ static inline int perf_session__parse_sample(struct perf_session
*session,
    session->header.needs_swap);
}

+static inline int perf_session__synthesize_sample(struct perf_session *session,
+    union perf_event *event,
+    const struct perf_sample *sample)
+{
+ return perf_event__synthesize_sample(event, session->sample_type,

```

1.7.8.rc0.35.gee6df