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Subject: [PATCH 2/6] perf: add ability to change event according to sample (v3)  
Posted by [Andrey Vagin](#) on Wed, 07 Dec 2011 13:55:57 GMT  
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It's opposition of perf\_session\_\_parse\_sample.

v2: fixed mistakes which David Arhen found

v3: s/data/sample/

s/perf\_event\_\_change\_sample/perf\_event\_\_synthesize\_sample

Reviewed-by: David Ahern <dsahern@gmail.com>

Signed-off-by: Andrew Vagin <avagin@openvz.org>

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```
tools/perf/util/event.h | 2 +
tools/perf/util/evsel.c | 74 +++++
tools/perf/util/session.h | 9 +++++
3 files changed, 85 insertions(+), 0 deletions(-)
```

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

index 0d80201..cc3cc11 100644

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

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

```
@ @ -199,6 +199,8 @ @ 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..e2d1b22 100644

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

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

```
@ @ -574,3 +574,77 @ @ 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) {
+ /* undo swap of u64, then swap on individual u32s */
+ 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) {
+ /* undo swap of u64, then swap on individual u32s */
+ 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 30e9c6b..4ed73d3 100644
--- a/tools/perf/util/session.h
+++ b/tools/perf/util/session.h
@@ -134,6 +134,15 @@ 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,
+    sample,
+    session->header.needs_swap);
+}
+
+ struct perf_evsel *perf_session__find_first_evtype(struct perf_session *session,
+    unsigned int type);
--
1.7.1

```

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