
Subject: [PATCH] macintosh/adb: Convert to the kthread API

Posted by [ebiederm](#) on Thu, 19 Apr 2007 06:55:44 GMT

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From: Eric W. Biederman <ebiederm@xmission.com> - unquoted

This patch modifies the startup of kadbprobe to use kthread_run instead of scheduling a work event which later calls kernel_thread and in the thread calls daemonize and blocks signals. kthread_run is simpler and more maintainable.

The variable pid_t adb_probe_task_pid is replaced by a struct task_struct variable named adb_probe_task. Which works equally well with for testing if the current process is the adb_probe thread, does not get confused in the presence of a pid namespace and is easier to compare against current as it is the same type.

The result is code that is slightly simpler and easier to maintain.

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drivers/macintosh/adb.c | 32 ++++++-----
1 files changed, 7 insertions(+), 25 deletions(-)

diff --git a/drivers/macintosh/adb.c b/drivers/macintosh/adb.c

index adfea3c..09c5261 100644

--- a/drivers/macintosh/adb.c

+++ b/drivers/macintosh/adb.c

@@ -35,6 +35,7 @@

#include <linux/spinlock.h>

#include <linux/completion.h>

#include <linux/device.h>

+#include <linux/kthread.h>

#include <asm/uaccess.h>

#include <asm/semaphore.h>

@@ -82,7 +83,7 @@ struct adb_driver *adb_controller;

BLOCKING_NOTIFIER_HEAD(adb_client_list);

static int adb_got_sleep;

static int adb_inited;

-static pid_t adb_probe_task_pid;

+static struct task_struct *adb_probe_task;

static DECLARE_MUTEX(adb_probe_mutex);

```

static struct completion adb_probe_task_comp;
static int sleepy_trackpad;
@@ -137,8 +138,7 @@ static void printADBReply(struct adb_request *req)

static __inline__ void adb_wait_ms(unsigned int ms)
{
- if (current->pid && adb_probe_task_pid &&
-   adb_probe_task_pid == current->pid)
+ if (adb_probe_task == current)
    msleep(ms);
    else
        mdelay(ms);
@@ -245,35 +245,19 @@ static int adb_scan_bus(void)
    * This kernel task handles ADB probing. It dies once probing is
    * completed.
    */
-static int
- adb_probe_task(void *x)
+static int adb_probe(void *x)
{
- sigset_t blocked;
-
- strcpy(current->comm, "kadbprobe");
-
- sigfillset(&blocked);
- sigprocmask(SIG_BLOCK, &blocked, NULL);
- flush_signals(current);

    printk(KERN_INFO "adb: starting probe task...\n");
    do_adb_reset_bus();
    printk(KERN_INFO "adb: finished probe task...\n");

- adb_probe_task_pid = 0;
+ adb_probe_task = NULL;
    up(&adb_probe_mutex);

    return 0;
}

-static void
- __adb_probe_task(struct work_struct *bullshit)
- {
-   adb_probe_task_pid = kernel_thread(adb_probe_task, NULL, SIGCHLD | CLONE_KERNEL);
- }
-
-static DECLARE_WORK(adb_reset_work, __adb_probe_task);
-
int

```

```

adb_reset_bus(void)
{
@@ -283,7 +267,7 @@ adb_reset_bus(void)
}

    down(&adb_probe_mutex);
- schedule_work(&adb_reset_work);
+ adb_probe_task = kthread_run(adb_probe, NULL, "kadbprobe");
    return 0;
}

@@ -469,9 +453,7 @@ adb_request(struct adb_request *req, void (*done)(struct adb_request *),
/* Synchronous requests send from the probe thread cause it to
 * block. Beware that the "done" callback will be overridden !
 */
- if ((flags & ADBREQ_SYNC) &&
-     (current->pid && adb_probe_task_pid &&
-     adb_probe_task_pid == current->pid)) {
+ if ((flags & ADBREQ_SYNC) && (current == adb_probe_task)) {
    req->done = adb_probe_wakeup;
    rc = adb_controller->send_request(req, 0);
    if (rc || req->complete)
--
1.5.0.g53756

```

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<https://lists.linux-foundation.org/mailman/listinfo/containers>
