

HP-UX driver attach routine not called, ioscan does not help

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An HP-UX 11.0 DLKM PCI interface device driver I have written does not have its attach() routine called when it is loaded, not even when ioscan is run. If I statically link the driver into the kernel, the attach() is still not called. Below are stripped down versions of the load() and attach() routines that I am using to track down the problem (the stripped down versions don't work either). Although the driver is intended to interact with PCI cards (MOD_WSIO_PCI is specified in mod_wsio_attach_list_add()), these stripped down versions will let me code MOD_WSIO_CORE at will, which I did as an experiment. With MOD_WSIO_CORE, attach() IS called (but only when ioscan is run), but when MOD_WSIO_PCI is coded, attach() is never called. When I reboot the machine, enter the interactive boot-up menu, and have it display various system info, the PCI card (an OHCI USB host controller) shows up in the list of PCI cards. The box is a 32-bit B132L workstation. This is my first interface driver. My only other driver (under HP-UX) has been a (successful) dynamically loadable pseudo driver.

The msg_printf() output when MOD_WSIO_PCI is specified:

```
> Sep 10 21:47:32 devbox vmunix: mydriver_load: routine entered...
> Sep 10 21:47:32 devbox vmunix: mydriver_load: wsio_install_driver rc==1.
> Sep 10 21:47:32 devbox vmunix: mydriver_load: mod_wsio_attach_list_add rc == 0.
> Sep 10 21:48:01 devbox vmunix: mydriver_unload: entered...
> Sep 10 21:48:01 devbox vmunix: mydriver_unload: mod_wsio_attach_list_remove rc == 0.
```

The msg_printf() output when MOD_WSIO_CORE is specified:

```
> Sep 10 21:08:40 devbox vmunix: mydriver_load: routine entered...
> Sep 10 21:08:40 devbox vmunix: mydriver_load: wsio_install_driver rc==1.
> Sep 10 21:08:40 devbox vmunix: mydriver_load: mod_wsio_attach_list_add rc == 0.
> Sep 10 21:08:45 devbox vmunix: mydriver_attach: routine entered; id == 0x84.
> Sep 10 21:08:45 devbox vmunix: mydriver_unload: entered...
> Sep 10 21:08:45 devbox vmunix: mydriver_unload: mod_wsio_attach_list_remove rc == 0.
```

The load() and attach() routines:

```
/*-----*/
#define MOD_WSIO_CORE 0x1
```

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```
#define MOD_WSIO_EISA 0x2
#define MOD_WSIO_PCI 0x4
int mydriver_load(arg)
void *arg;
{
int rc;

msg_printf("mydriver_load: routine entered...\n");
if (arg == NULL)
{
msg_printf("mydriver_load: ERROR ---- arg is NULL.\n");
return(EINVAL);
}

mydriver_wsio_drv_info.drv_info = (drv_info_t *)arg;
rc = wsio_install_driver(&mydriver_wsio_drv_info);
msg_printf("mydriver_load: wsio_install_driver rc==%d.\n", rc);
if (rc == 0)
{
/* note that 0 means failure and 1 means success! */
return(ENXIO);
}

rc = mod_wsio_attach_list_add(MOD_WSIO_PCI, mydriver_attach);
msg_printf("mydriver_load: mod_wsio_attach_list_add rc == %d.\n",rc);

return(0);
}
/*-----*/
/* This stripped down version doesn't try to claim any
   devices, it merely indicates if attach() was called. */
int mydriver_attach(id, isc)
unsigned int id;
struct isc_table_type *isc;
{
msg_printf("mydriver_attach: routine entered; id == 0x%x.\n", id);
return(0);
}
/*-----*/
```

Thanks for any information anyone can provide.

Mike