

2.6.0-test6: more __init bugs

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Here are some cases where __init code or data is referenced by non-__init code.

Questions:

- Is `init_module` allowed, required or forbidden to be __init?
- Ditto for `Scsi_Host_Template.detect()`?
- Ditto for `net_device->set_config()`?

Thanks for looking at these potential bugs, and sorry if I've made any mistakes.

Best,
Rob

P.S. All these bugs were found with Cqual, the bug-finding tool developed by Jeff Foster, John Kodumal, and many others, and available at <http://www.cs.umd.edu/~jfoster/cqual/>, although the currently released version of cqual only has primitive support for __init bug-finding.

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** Probably a bug:

** `drivers/net/tokenring/ibmtr.c:channel_def (__init)`
referenced by `drivers/net/tokenring/ibmtr.c:ibmtr_probe1() (__devinit)`
called by `drivers/net/tokenring/ibmtr.c:ibmtr_probe() (__devinit)`
is stored in a `dev_link_t->irq.Instance->init()`
returned by `drivers/net/pcmcia/ibmtr_cs.c:ibmtr_attach() (not __init)`

Note: So it looks like `ibmtr_probe()` can be called any time a token ring pcmcia card is inserted, which may be after init-time

Fix: Make all this stuff non-__init when it's used for the pcmcia version of the driver?

** Probably a bug?

** `drivers/net/wan/sdla.c:valid_port (__init)`
referenced by `sdla_set_config() (not __init)`

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Note: `sdla_set_config()` is stored as a `net_device->set_config()`.

Is such a function allowed to touch `__init` data?

Fix: declare `valid_port` as not `__init`.

** Possible bug:

** `drivers/net/tokenring/3c359.c:xl_init() (__init)`

called by `xl_probe() (__devinit)`

Fix: declare `xl_init __devinit` or declare `xl_probe __init`.

Note: `xl_probe` is used as a `pci_driver->probe()` field.

** Possible bug:

** `drivers/char/ipmi/ipmi_msghandler.c:ipmi_init_msghandler() (__init)`

called by numerous non-`__init` functions

Note: `ipmi_init_msghandler()` is an alias for `init_module`

Fix: declare `ipmi_init_msghandler` non-`__init`.

** Code can be declared `__init`

** `drivers/net/acenic.c:probed() (__init)`

referenced by: `acenic_probe() (__devinit)`

only caller: `ace_module_init() (__init)`

Fix: Make `acenic_probe() __init?`

** Probably not a bug?

** `drivers/message/fusion/mptscsih.c:mptscsih_setup() (__init)`

called from `drivers/message/fusion/mptscsih.c:mptscsih_detect()` (not `__init`)

Note: `mptscsih_detect()` is a `Scsi_Host_Template.detect()` function.

Can `detect()` functions be `__init?`

Fix: either declare `mptscsih_setup()` non-`__init` OR

declare `mptscsih_detect()` as `__init`

** Probably not a bug?

** `drivers/scsi/qla1280.c:driver_setup() (__init)`

referenced by `qla1280_read_nvram()` (not `__init`)

called by `qla1280_initialize_adapter()` (not `__init`)

called by `qla1280_do_device_init()` (not `__init`)

called by `qla1280_detect()` (not `__init`)

Note: `qla1280_detect` is a `Scsi_Host_Template->detect()` routine.

Fix: make all this stuff `__init?`

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