

Understanding Linux Lists

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Understanding the Linux kernel source code requires understanding the role played by different entities. An interesting example is the case of structures of type `list_head`. Some are actually heads of lists. Others are inlined inside of list elements. Documentation about which are which, and which heads are connected to which elements, is not systematic. We have developed a tool, Liliput, that takes into account how `list_head` structures are used to reconstruct this information. We have used the tool to find a few bugs, as well as to uncover some interesting list programming paradigms.

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