

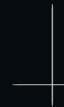
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# Installing and Using the Linux-Kernel Memory Model (LKMM)

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# LKMM Components

tools/memory-model  
linux-kernel.\*  
“source code”

Interpreted by

herd7

Input to

Litmus tests

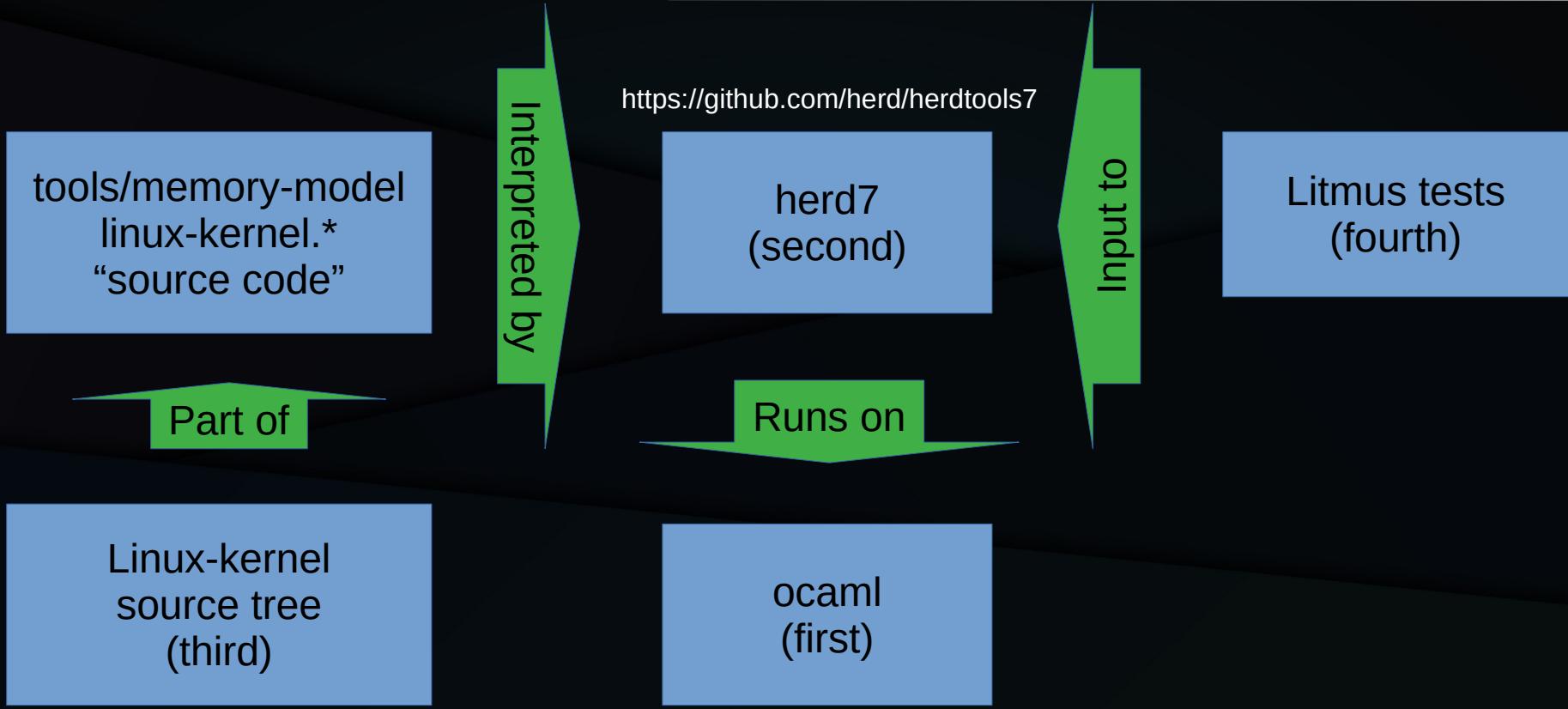
Part of

Runs on

Linux-kernel  
source tree

ocaml

# LKMM Components



# LKMM Installation

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- Install ocaml from distro: <https://ocaml.org/install>
- Install herd7: <https://github.com/herd/herdtools7>
  - Follow instructions in INSTALL.md
  - May need opam:
    - <https://opam.ocaml.org/doc/Install.html>
  - Get prerequisites: opam install dune menhir
- Find Linux-kernel source tree:
  - <git://git.kernel.org/pub/scm/linux/kernel/git/torvalds/linux.git>
- (Optional) Install litmus tests:
  - <https://github.com/paulmckrcu/litmus>
  - Alternatively, <https://github.com/linaro/memtest/litmus-tests>

# Run LKMM

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- `cd $LINUX_SRC/tools/memory-model`
- `herd7 -conf linux-kernel.cfg <path>`
  - Where `<path>` is litmus-test pathname

# Questions?