GDB Intro

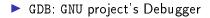
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Introduction





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- GDB: GNU project's Debugger (it is not a database...).
 Supports several programming languages.
- Started around 1986 by Richard Stallman (after GNU Emacs, but likely before GCC).

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- # gcc -00 -g program.c -o program, or
- # CFLAGS='-00 -g' ./configure && make

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gdb
(gdb) file ./program
(gdb) run arg1 arg2
Or you can also use start (run and stop at main).

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- Catchpoints (events)
 - catch fork
 - catch syscall

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- Or step into a function:
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- Or finish executing the current function, but stop at the end:
 finish

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- Hint: you may want to enable pretty-printing:

set print pretty on

Yes, we have ncurses! The Text Uuser Interface!
 C-x a (that's CTRL x a).

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- If GDB can't find the source code, you can specify its location using the dir command.

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If you want to see the call stack (A.K.A. stack trace) that lead to the current function:

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- And you can move through it:
 - up and down
 - You can also go to a specific frame: frame NUMBER

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 - generate-core-file
- You can open a corefile using GDB:
 - # gdb program -c corefile.PID

Other interesting information

- info breakpoints
- info locals
- info registers

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Many others!

Who you gonna call?

- Our online documentation (info) is very good!
- Every command has a help.
- You can also use apropos when searching for a term.

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TAB-completion is also useful.

Other advanced features

- Python support.
- Reverse debugging.
- ► Support for SystemTap SDT probes.

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Thank you

- ► Thanks to Red Hat for the support.
- > Thanks to Paul Nijjar and Bob Jonkman for the invitation.

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Thanks to you for watching!