



ORACLE

drgn overview

Stephen Brennan

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Outline

- What is drgn?
- Why use drgn?
- Feedback

What is drgn?

- A debugger written as a Python library
- Primarily targets the Linux kernel, but supports C userspace applications and growing C++ support

Examples of drgn use

```
# Read a variable
prog["slab_caches"]

# Use Linux helpers to read a list of data structures
slab_caches = list_for_each_entry(
    "struct kmem_cache",
    prog["slab_caches"].address_of_(),
    "list",
)

# Access structure data
for cache in slab_caches:
    print(cache.name)
```

Why use drgn?

- For crash + pykdump users:
 - Consistent, well-documented, pythonic API
- For GDB users:
 - Higher level API focused on exposing program values naturally in Python
 - Growing set of kernel helpers
- For both:
 - Fully standalone from crash or GDB

Why not use drgn?

- Not as many Linux kernel helpers as crash (but growing!)
- No support for starting and stopping live programs, like GDB

What do you need?

What do you need from a programmable debugger?