

```
Invocation {  
  Mode: heap  
  Command: ./target/debug/rusty-v8-memtest  
  PID: 24968  
}
```

```
Times {  
  t-gmax: 28,090,907 instrs (91.37% of program duration)  
  t-end: 30,744,409 instrs  
}
```

```
▼ PP 1/1 (5 children) {  
  Total: 2,708,886 bytes (100%, 88,109.87/Minstr) in 2,890 blocks (100%, 94/Minstr), avg size 937.33 bytes, avg lifetime 9,413,096.73 instrs (30.62% of program duration)  
  At t-gmax: 639,278 bytes (100%) in 1,034 blocks (100%), avg size 618.26 bytes  
  At t-end: 33,909 bytes (100%) in 657 blocks (100%), avg size 51.61 bytes  
  Reads: 11,190,119 bytes (100%, 363,972.49/Minstr), 4.13/byte  
  Writes: 3,589,676 bytes (100%, 116,758.66/Minstr), 1.33/byte  
  Allocated at {  
    #0: [root]  
  }  
}
```

```
▼ PP 1.1/5 (3 children) {  
  Total: 1,491,824 bytes (55.07%, 48,523.42/Minstr) in 141 blocks (4.88%, 4.59/Minstr), avg size 10,580.31 bytes, avg lifetime 796,969.69 instrs (2.59% of program duration)  
  At t-gmax: 200,880 bytes (31.42%) in 12 blocks (1.16%), avg size 16,740 bytes  
  At t-end: 16,384 bytes (48.32%) in 2 blocks (0.3%), avg size 8,192 bytes  
  Reads: 1,868,249 bytes (16.7%, 60,767.11/Minstr), 1.25/byte  
  Writes: 1,041,623 bytes (29.02%, 33,880.08/Minstr), 0.7/byte  
  Allocated at {  
    #1: 0xA8F26F: v8::internal::AllocAtLeastWithRetry(unsigned long) (allocation.cc:135)  
    #2: 0xA9207B: v8::internal::AccountingAllocator::AllocateSegment(unsigned long, bool) (accounting-allocator.cc:94)  
    #3: 0xA922D3: v8::internal::Zone::Expand(unsigned long) (zone.cc:164)  
  }  
}
```

```
PP 1.1.1/3 {  
  Total: 8,192 bytes (0.3%, 266.45/Minstr) in 1 blocks (0.03%, 0.03/Minstr), avg size 8,192 bytes, avg lifetime 29,136,345 instrs (94.77% of program duration)  
  Max: 8,192 bytes in 1 blocks, avg size 8,192 bytes  
  At t-gmax: 8,192 bytes (1.28%) in 1 blocks (0.1%), avg size 8,192 bytes  
  At t-end: 8,192 bytes (24.16%) in 1 blocks (0.15%), avg size 8,192 bytes  
  Reads: 16 bytes (0%, 0.52/Minstr), 0/byte  
  Writes: 766 bytes (0.02%, 24.92/Minstr), 0.09/byte  
  Allocated at {  
    ^1: 0xA8F26F: v8::internal::AllocAtLeastWithRetry(unsigned long) (allocation.cc:135)  
    ^2: 0xA9207B: v8::internal::AccountingAllocator::AllocateSegment(unsigned long, bool) (accounting-allocator.cc:94)  
    ^3: 0xA922D3: v8::internal::Zone::Expand(unsigned long) (zone.cc:164)  
    #4: 0x11F46F7: v8::internal::compiler::Linkage::GetStubCallDescriptor(v8::internal::Zone*, v8::internal::CallInterfaceDescriptor const&, int, v8::base::Flags<v8::internal::compiler::CallDescriptor::Flag, ...>, v8::internal::StubCallMode, bool, v8::base::Flags<v8::internal::compiler::Operator::Property, ...>) (compiler-linkage.cc:104)  
    #5: 0xCD73B3: v8::internal::compiler::GetBuiltinCallDescriptor(v8::internal::Builtin, v8::internal::Zone*, v8::internal::StubCallMode, bool, v8::base::Flags<v8::internal::compiler::Operator::Property, ...>) (compiler-linkage.cc:104)  
    #6: 0xCB0F83: v8::internal::compiler::WasmCallDescriptors::WasmCallDescriptors(v8::internal::AccountingAllocator*) (wasm-call-descriptors.cc:16)  
    #7: 0xB17E03: v8::internal::wasm::WasmEngine::WasmEngine() (wasm-engine.cc:446)  
    #8: 0xB1FE6B: v8::internal::wasm::WasmEngine::InitializeOncePerProcess() (wasm-engine.cc:1809)  
    #9: 0x80AD9B: v8::internal::V8::Initialize() (v8.cc:285)  
    #10: 0x683897: v8::V8::Initialize(int) (api.cc:6351)  
    #11: 0x65E9C3: v8::V8::initialize (V8.rs:201)  
  }  
}
```

```
PP 1.1.2/3 {  
  Total: 8,192 bytes (0.3%, 266.45/Minstr) in 1 blocks (0.03%, 0.03/Minstr), avg size 8,192 bytes, avg lifetime 21,611,126 instrs (70.29% of program duration)  
  Max: 8,192 bytes in 1 blocks, avg size 8,192 bytes  
  At t-gmax: 8,192 bytes (1.28%) in 1 blocks (0.1%), avg size 8,192 bytes  
  At t-end: 8,192 bytes (24.16%) in 1 blocks (0.15%), avg size 8,192 bytes  
  Reads: 16 bytes (0%, 0.52/Minstr), 0/byte  
  Writes: 68 bytes (0%, 2.21/Minstr), 0.01/byte  
  Allocated at {  
    ^1: 0xA8F26F: v8::internal::AllocAtLeastWithRetry(unsigned long) (allocation.cc:135)  
    ^2: 0xA9207B: v8::internal::AccountingAllocator::AllocateSegment(unsigned long, bool) (accounting-allocator.cc:94)  
    ^3: 0xA922D3: v8::internal::Zone::Expand(unsigned long) (zone.cc:164)  
    #4: 0xABE3E7: v8::internal::wasm::TypeCanonicalizer::AddRecursiveGroup(v8::internal::Signature<v8::internal::wasm::ValueType> const*) (canonical-types.cc:80)  
    #5: 0xB28437: v8::internal::WasmJs::Install(v8::internal::Isolate*, bool) (wasm-js.cc:3145)  
    #6: 0x80948B: v8::internal::Genesis::InstallSpecialObjects(v8::internal::Isolate*, v8::internal::Handle<v8::internal::Context>) (bootstrapper.cc:0)  
    #7: 0x7EE1E3: v8::internal::Bootstrapper::CreateEnvironment(v8::internal::MaybeHandle<v8::internal::JSGlobalProxy>, v8::Local<v8::ObjectTemplate>, v8::ExtensionConfiguration*, unsigned long, v8::DeserializeInternalFieldsCallback, v8::MicrotaskQueue*) (bootstrapper.cc:0)  
    #8: 0x683E83: v8::NewContext(v8::Isolate*, v8::ExtensionConfiguration*, v8::MaybeLocal<v8::ObjectTemplate>, v8::MaybeLocal<v8::Value>, unsigned long, v8::DeserializeInternalFieldsCallback, v8::MicrotaskQueue*) (bootstrapper.cc:0)  
    #9: 0x40C587: v8::context::<impl v8::data::Context>::new_from_template:{{closure}} (context.rs:84)  
  }  
}
```

[illegible]



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}
Allocated at {
#1: 0x66F09B: operator new(unsigned long) (new.cpp:67)
#2: 0x7EDF27: v8::internal::Bootstrapper::InitializeOncePerProcess() (bootstrapper.cc:153)
#3: 0x80AD7F: v8::internal::V8::Initialize() (v8.cc:276)
#4: 0x683897: v8::V8::Initialize(int) (api.cc:6351)
#5: 0x65E9C3: v8::V8::Initialize (V8.rs:201)
#6: 0x260C1F: deno_core::runtime::jsruntime::v8_init (jsruntime.rs:363)
#7: 0x26125B: deno_core::runtime::jsruntime::JsRuntime::init_v8::{closure}} (jsruntime.rs:546)
#8: 0x244A9F: std::sync::once::Once::call_once::{closure}} (once.rs:149)
#9: 0x41457F: std::sys_common::once::futex::Once::call (futex.rs:124)
#10: 0x24497F: std::sync::once::Once::call_once (once.rs:149)
#11: 0x2610C7: deno_core::runtime::jsruntime::JsRuntime::init_v8 (jsruntime.rs:545)
}
}
PP 1.3/5 {
Total:      3,048 bytes (0.11%, 99.14/Minstr) in 1 blocks (0.03%, 0.03/Minstr), avg size 3,048 bytes, avg lifetime 27,324,837 instrs (88.88% of program duration)
Max:        3,048 bytes in 1 blocks, avg size 3,048 bytes
At t-gmax:   3,048 bytes (0.48%) in 1 blocks (0.1%), avg size 3,048 bytes
At t-end:    3,048 bytes (8.99%) in 1 blocks (0.15%), avg size 3,048 bytes
Reads:       28 bytes (0%, 0.91/Minstr), 0.01/byte
Writes:      2,560 bytes (0.07%, 83.27/Minstr), 0.84/byte
Allocated at {
#1: 0xC39E5F: _uhash_create(int (*)(UElement), signed char (*)(UElement, UElement), signed char (*)(UElement, UElement), int, UErrorCode*) (uhash.cpp:296)
#2: 0xC10D37: icu_73::locale_set_default_internal(char const*, UErrorCode&) (locid.cpp:200)
#3: 0xC1103B: icu_73::Locale::init(char const*, signed char) (locid.cpp:1845)
#4: 0x71B483: v8::internal::Isolate::DefaultLocate() (isolate.cc:6036)
#5: 0x72127B: v8::internal::LocalIsolate::LocalIsolate(v8::internal::Isolate*, v8::internal::ThreadKind) (local-isolate.cc:28)
#6: 0x717123: v8::internal::Isolate::Init(v8::internal::SnapshotData*, v8::internal::SnapshotData*, v8::internal::SnapshotData*, bool) (isolate.cc:4460)
#7: 0x717B9B: v8::internal::Isolate::InitWithSnapshot(v8::internal::SnapshotData*, v8::internal::SnapshotData*, v8::internal::SnapshotData*, bool) (isolate.cc:4178)
#8: 0xA739DF: v8::internal::Snapshot::Initialize(v8::internal::Isolate*) (snapshot.cc:199)
#9: 0x689EEF: v8::Isolate::Initialize(v8::Isolate*, v8::Isolate::CreateParams const&) (api.cc:9369)
#10: 0x68A00F: v8::Isolate::New(v8::Isolate::CreateParams const&) (api.cc:9405)
#11: 0x661073: v8::isolate::Isolate::new (isolate.rs:576)
}
}
PP 1.4/5 {
Total:      1,440 bytes (0.05%, 46.84/Minstr) in 5 blocks (0.17%, 0.16/Minstr), avg size 288 bytes, avg lifetime 29,356,364.4 instrs (95.49% of program duration)
Max:        1,440 bytes in 5 blocks, avg size 288 bytes
At t-gmax:   1,440 bytes (0.23%) in 5 blocks (0.48%), avg size 288 bytes
At t-end:    1,440 bytes (4.25%) in 5 blocks (0.76%), avg size 288 bytes
Reads:       40 bytes (0%, 1.3/Minstr), 0.03/byte
Writes:      320 bytes (0.01%, 10.41/Minstr), 0.22/byte
Accesses: {}
[  0] 10 " " " " " " " " " - - - - - 5 " " " " " " " " " - - - - -
[ 32] 10 " " " " " " " " " 5 " " " " " " " " " 10 " " " " " " " " " 5 " " " " " " " " "
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[ 96] - - - - -
[128] - - - - -
[160] - - - - -
[192] - - - - -
[224] - - - - -
[256] - - - - -
}
Allocated at {
#1: 0x400F283: calloc (rtld-malloc.h:44)
#2: 0x400F283: allocate_dtv (dl-tls.c:375)
#3: 0x400FC5F: _dl_allocate_tls (dl-tls.c:634)
#4: 0x4A1F803: allocate_stack (allocatestack.c:423)
#5: 0x4A1F803: pthread_create@GLIBC_2.34 (pthread_create.c:650)
#6: 0xE932CF: v8::base::Thread::Start() (platform-posix.cc:1198)
#7: 0x66B53B: v8::platform::DefaultWorkerThreadsTaskRunner::DefaultWorkerThreadsTaskRunner(unsigned int, double (*)(*), v8::base::Thread::Priority) (default-worker-threads-task-runner.cc:18)
#8: 0x66A137: v8::platform::DefaultPlatform::EnsureBackgroundTaskRunnerInitialized() (default-platform.cc:141)
#9: 0x669E93: v8::platform::NewDefaultPlatform(int, v8::platform::IdleTaskSupport, v8::platform::InProcessStackDumping, std::Cr::unique_ptr<v8::TracingController, std::Cr::default_delete<v8::TracingControll...
#10: 0x260C93: new (platform.rs:133)
#11: 0x260C93: new default platform (platform.rs:80)
```

```
#12: 0x260C93: deno_core::runtime::jsruntime::v8_init::{{closure}} (jsruntime.rs:361)
#13: 0x24C49F: core::option::Option<T>::unwrap_or_else (option.rs:979)
#14: 0x260C03: deno_core::runtime::jsruntime::v8_init (jsruntime.rs:360)
#15: 0x26125B: deno_core::runtime::jsruntime::JsRuntime::init_v8::{{closure}} (jsruntime.rs:546)
}
}
PP 1.5/5 {
  At t-end: 550 bytes (1.62%)
  Allocated at {
    [24 insignificant]
  }
}
```

PP significance threshold: at-t-end >= 339.09 bytes (1%)

Legend:

- 't-gmax': time of global heap maximum (as measured in bytes)
- 't-end': time of program end
- 'instrs': instructions
- 'Minstr': mega-instruction, i.e. one million instructions
- 'PP': program point
- 'avg': average
- '⊥' (in accesses): zero
- '∞' (in accesses): leaf PP counts max out at 65534; larger counts are treated as infinity
- 'n' (in accesses): same as previous entry

Processing time: read:5.5ms + parse:1.2ms + build:9.3ms + display:1.9ms = total:17.9ms