File
Load…

Sort metric
At t-end (bytes) ▾

```
Invocation {
  Mode:     heap
  Command:  ./target/debug/rusty-v8-memtest
  PID:      20430
}

Times {
  t-gmax: 26,800,355 instrs (91.12% of program duration)
  t-end:  29,413,416 instrs
}

▼ PP 1/1 (6 children) {
    Total:      2,766,579 bytes (100%, 94,058.41/Minstr) in 3,128 blocks (100%, 106.35/Minstr), avg size 884.46 bytes, avg lifetime 9,326,494.4 instrs (31.71% of program duration)
    At t-gmax: 664,075 bytes (100%) in 1,134 blocks (100%), avg size 585.6 bytes
    At t-end:  36,701 bytes (100%) in 659 blocks (100%), avg size 55.69 bytes
    Reads:     11,243,734 bytes (100%, 382,265.49/Minstr), 4.06/byte
    Writes:    3,642,207 bytes (100%, 123,828.09/Minstr), 1.32/byte
    Allocated at {
      #0: [root]
    }
  }
  ▼ PP 1.1/6 (3 children) {
      Total:      1,491,824 bytes (53.92%, 50,719.17/Minstr) in 141 blocks (4.51%, 4.79/Minstr), avg size 10,580.31 bytes, avg lifetime 785,883.55 instrs (2.67% of program duration)
      At t-gmax: 200,880 bytes (30.25%) in 12 blocks (1.06%), avg size 16,740 bytes
      At t-end:  16,384 bytes (44.64%) in 2 blocks (0.3%), avg size 8,192 bytes
      Reads:     1,871,526 bytes (16.65%, 63,628.31/Minstr), 1.25/byte
      Writes:    1,041,623 bytes (28.6%, 35,413.19/Minstr), 0.7/byte
      Allocated at {
        #1: 0xA84C93: v8::internal::AllocAtLeastWithRetry(unsigned long) (allocation.cc:135)
        #2: 0xA87A9F: v8::internal::AccountingAllocator::AllocateSegment(unsigned long, bool) (accounting-allocator.cc:94)
        #3: 0xA87CF7: v8::internal::Zone::Expand(unsigned long) (zone.cc:164)
      }
    }
    ── PP 1.1.1/3 {
        Total:      8,192 bytes (0.3%, 278.51/Minstr) in 1 blocks (0.03%, 0.03/Minstr), avg size 8,192 bytes, avg lifetime 28,228,729 instrs (95.97% of program duration)
        Max:        8,192 bytes in 1 blocks, avg size 8,192 bytes
        At t-gmax:  8,192 bytes (1.23%) in 1 blocks (0.09%), avg size 8,192 bytes
        At t-end:   8,192 bytes (22.32%) in 1 blocks (0.15%), avg size 8,192 bytes
        Reads:      16 bytes (0%, 0.54/Minstr), 0/byte
        Writes:     766 bytes (0.02%, 26.04/Minstr), 0.09/byte
        Allocated at {
          ^1: 0xA84C93: v8::internal::AllocAtLeastWithRetry(unsigned long) (allocation.cc:135)
          ^2: 0xA87A9F: v8::internal::AccountingAllocator::AllocateSegment(unsigned long, bool) (accounting-allocator.cc:94)
          ^3: 0xA87CF7: v8::internal::Zone::Expand(unsigned long) (zone.cc:164)
          #4: 0x11E76F7: v8::internal::compiler::Linkage::GetStubCallDescriptor(v8::internal::Zone*, v8::internal::CallInterfaceDescriptor const&, int, v8::base::Flags<v8::internal::compiler::CallDescriptor::Flag,
          #5: 0xCC9DCF: v8::internal::compiler::GetBuiltinCallDescriptor(v8::internal::Builtin, v8::internal::Zone*, v8::internal::StubCallMode, bool, v8::base::Flags<v8::internal::compiler::Operator::Property, un
          #6: 0xCA399F: v8::internal::compiler::WasmCallDescriptors::WasmCallDescriptors(v8::internal::AccountingAllocator*) (wasm-call-descriptors.cc:16)
          #7: 0xB0D827: v8::internal::wasm::WasmEngine::WasmEngine() (wasm-engine.cc:446)
          #8: 0xB1588F: v8::internal::wasm::WasmEngine::InitializeOncePerProcess() (wasm-engine.cc:1809)
          #9: 0x8007BF: v8::internal::V8::Initialize() (v8.cc:285)
          #10: 0x67C2C3: v8::V8::Initialize(int) (api.cc:6351)
          #11: 0x6573EF: v8::V8::initialize (V8.rs:201)
        }
      }
    ── PP 1.1.2/3 {
        Total:      8,192 bytes (0.3%, 278.51/Minstr) in 1 blocks (0.03%, 0.03/Minstr), avg size 8,192 bytes, avg lifetime 21,334,094 instrs (72.53% of program duration)
        Max:        8,192 bytes in 1 blocks, avg size 8,192 bytes
        At t-gmax:  8,192 bytes (1.23%) in 1 blocks (0.09%), avg size 8,192 bytes
        At t-end:   8,192 bytes (22.32%) in 1 blocks (0.15%), avg size 8,192 bytes
        Reads:      16 bytes (0%, 0.54/Minstr), 0/byte
        Writes:     68 bytes (0%, 2.31/Minstr), 0.01/byte
        Allocated at {
          ^1: 0xA84C93: v8::internal::AllocAtLeastWithRetry(unsigned long) (allocation.cc:135)
          ^2: 0xA87A9F: v8::internal::AccountingAllocator::AllocateSegment(unsigned long, bool) (accounting-allocator.cc:94)
          ^3: 0xA87CF7: v8::internal::Zone::Expand(unsigned long) (zone.cc:164)
          #4: 0xAB2E07: v8::internal::wasm::TypeCanonicalizer::AddRecursiveGroup(v8::internal::Signature<v8::internal::wasm::ValueType> const*) (canonical-types.cc:80)
          #5: 0xB1DE5B: v8::internal::WasmJs::Install(v8::internal::Isolate*, bool) (wasm-js.cc:3145)
          #6: 0x7FEEAF: v8::internal::Genesis::InstallSpecialObjects(v8::internal::Isolate*, v8::internal::Handle<v8::internal::Context>) (bootstrapper.cc:0)
          #7: 0x7E3C07: v8::internal::Bootstrapper::CreateEnvironment(v8::internal::MaybeHandle<v8::internal::JSGlobalProxy>, v8::Local<v8::ObjectTemplate>, v8::ExtensionConfiguration*, unsigned long, v8::Deseria
          #8: 0x67C8AF: v8::NewContext(v8::Isolate*, v8::ExtensionConfiguration*, v8::MaybeLocal<v8::ObjectTemplate>, v8::MaybeLocal<v8::Value>, unsigned long, v8::DeserializeInternalFieldsCallback, v8::MicrotaskC
          #9: 0x404FB3: v8::context::<impl v8::data::Context>::new_from_template::{{closure}} (context.rs:84)
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            #10: 0x263F23: cast_local<v8::data::Context, v8::context::{impl#0}::new_from_template::{closure_env#0}> (scope.rs:239)
            #11: 0x263F23: new_from_template (context.rs:83)
            #12: 0x263F23: deno_core::runtime::jsruntime::create_context (jsruntime.rs:1725)
            #13: 0x25AE6B: deno_core::runtime::jsruntime::JsRuntime::new_inner (jsruntime.rs:675)
        }
    }
    └─ PP 1.1.3/3 {
        At t-end:   0 bytes (0%)
        Allocated at {
          [23 insignificant]
        }
    }
}
▼ PP 1.2/6 (5 children) {
    Total:      1,033,448 bytes (37.35%, 35,135.26/Minstr) in 2,625 blocks (83.92%, 89.24/Minstr), avg size 393.69 bytes, avg lifetime 9,635,721.09 instrs (32.76% of program duration)
    At t-gmax: 369,536 bytes (55.65%) in 976 blocks (86.07%), avg size 378.62 bytes
    At t-end:   12,215 bytes (33.28%) in 629 blocks (95.45%), avg size 19.42 bytes
    Reads:      8,363,695 bytes (74.39%, 284,349.67/Minstr), 8.09/byte
    Writes:     2,294,288 bytes (62.99%, 78,001.41/Minstr), 2.22/byte
    Allocated at {
      #1: 0x667AC7: operator new(unsigned long) (new.cpp:67)
    }
}
    └─ PP 1.2.1/5 {
        Total:      4,096 bytes (0.15%, 139.26/Minstr) in 1 blocks (0.03%, 0.03/Minstr), avg size 4,096 bytes, avg lifetime 14,113,456 instrs (47.98% of program duration)
        Max:        0 bytes in 0 blocks, avg size 0 bytes
        At t-gmax: 4,096 bytes (0.62%) in 1 blocks (0.09%), avg size 4,096 bytes
        At t-end:   4,096 bytes (11.16%) in 1 blocks (0.15%), avg size 4,096 bytes
        Reads:      16 bytes (0%, 0.54/Minstr), 0/byte
        Writes:     24 bytes (0%, 0.82/Minstr), 0.01/byte
        Allocated at {
          ^1: 0x667AC7: operator new(unsigned long) (new.cpp:67)
          #2: 0x66508B: std::Cr::deque<std::Cr::unique_ptr<v8::Task, std::Cr::default_delete<v8::Task> >, std::Cr::allocator<std::Cr::unique_ptr<v8::Task, std::Cr::default_delete<v8::Task> > > >::__add_back_capaci
          #3: 0x664B13: v8::platform::DelayedTaskQueue::Append(std::Cr::unique_ptr<v8::Task, std::Cr::default_delete<v8::Task> >) (delayed-task-queue.cc:28)
          #4: 0x6641D7: v8::platform::DefaultWorkerThreadsTaskRunner::PostTask(std::Cr::unique_ptr<v8::Task, std::Cr::default_delete<v8::Task> >) (default-worker-threads-task-runner.cc:42)
          #5: 0x662037: v8::Platform::CallOnWorkerThread(std::Cr::unique_ptr<v8::Task, std::Cr::default_delete<v8::Task> >) (v8-platform.h:1082)
          #6: 0xE8A497: v8::platform::DefaultJobState::NotifyConcurrencyIncrease() (default-job.cc:59)
          #7: 0xEED0CB: v8::internal::baseline::BaselineBatchCompiler::EnqueueFunction(v8::internal::Handle<v8::internal::JSFunction>) (baseline-batch-compiler.cc:266)
          #8: 0xF6C1F3: v8::internal::TieringManager::OnInterruptTick(v8::internal::Handle<v8::internal::JSFunction>, v8::internal::CodeKind) (tiering-manager.cc:431)
          #9: 0x1011A87: v8::internal::(anonymous namespace)::BytecodeBudgetInterruptWithStackCheck(v8::internal::Isolate*, v8::internal::Arguments<(v8::internal::ArgumentsType)0>&, v8::internal::CodeKind) (runti
          #10: 0x1010217: v8::internal::Runtime_BytecodeBudgetInterruptWithStackCheck_Ignition(int, unsigned long*, v8::internal::Isolate*) (runtime-internal.cc:434)
          #11: 0xD69C23: Builtins_CEntry_Return1_ArgvOnStack_NoBuiltinExit (in /opt/rusty-v8-memtest/target/debug/rusty-v8-memtest)
        }
    }
    ▼ PP 1.2.2/5 (1 children) {
        Total:      72,630 bytes (2.63%, 2,469.28/Minstr) in 654 blocks (20.91%, 22.23/Minstr), avg size 111.06 bytes, avg lifetime 22,375,620.9 instrs (76.07% of program duration)
        At t-gmax: 30,194 bytes (4.55%) in 519 blocks (45.77%), avg size 58.18 bytes
        At t-end:   3,554 bytes (9.68%) in 514 blocks (78%), avg size 6.91 bytes
        Reads:      1,380,234 bytes (12.28%, 46,925.32/Minstr), 19/byte
        Writes:     275,249 bytes (7.56%, 9,357.94/Minstr), 3.79/byte
        Allocated at {
          ^1: 0x667AC7: operator new(unsigned long) (new.cpp:67)
          #2: 0x667B6F: operator new[](unsigned long, std::nothrow_t const&) (new.cpp:119)
        }
    }
        └─ PP 1.2.2.1/1 {
            At t-end:   3,554 bytes (9.68%)
            Allocated at {
              [520 insignificant]
            }
        }
    └─ PP 1.2.3/5 {
        At t-end:   3,261 bytes (8.89%)
        Allocated at {
          [255 insignificant]
        }
    }
    └─ PP 1.2.4/5 {
        Total:      784 bytes (0.03%, 26.65/Minstr) in 1 blocks (0.03%, 0.03/Minstr), avg size 784 bytes, avg lifetime 28,229,446 instrs (95.97% of program duration)
        Max:        784 bytes in 1 blocks, avg size 784 bytes
        At t-gmax: 784 bytes (0.12%) in 1 blocks (0.09%), avg size 784 bytes
        At t-end:   784 bytes (2.14%) in 1 blocks (0.15%), avg size 784 bytes
        Reads:      1,868 bytes (0.02%, 63.51/Minstr), 2.38/byte
        Writes:     2,434 bytes (0.07%, 82.75/Minstr), 3.1/byte
        Accesses: {
          [  0] 2  "  "  "  "  "  "  "  "  "  "  "  "  "  "  122  "  "  "  2  "  "  "
          [ 32] 74  "  "  "  98  "  "  "  99  "  "  "  2  "  "  "  "  "  "  "  "  "  "
          [ 64] 2  "  "  "  "  "  "  "  "  "  "  "  "  "  "  26  "  "  "  "  "  "  "
          [ 96] 2  "  "  "  "  "  5  "  "  "  "  "  "  "  "  "  "  2  "  "  "  "  "
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       [128]   2  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  1  "  "  "
       [160]   2  "  "  "  "  8  "  "  "  "  "  "  6  "  "  "  "  "  "  "  4  "  "  "  "  "  "  "  "  "
       [192]   7  "  "  "  "  "  "  "  "  5  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "
       [224]   3  "  "  1  "  "  "  2  "  "  "  "  "  "  "  "  5  "  "  "  "  "  "  "  "  "  "  "
       [256]   2  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "
       [288]   4  "  "  "  "  5  "  "  "  "  "  "  6  "  "  "  "  "  "  "  4  "  "  "  "
       [320]   4  "  "  "  "  6  "  "  "  "  "  "  2  "  "  "  "  "  "  "  "  1  "  "  "  "
       [352]   7  "  "  2  "  "  "  5  "  "  "  "  6  "  "  "  "  7  "  "  "  2  "  "  "  "  "  "  "  "  "
       [384]   2  "  "  "  "  "  "  "  "  "  "  "  "  "  7  "  "  "  "  "  "  "  "  "  2  "  "  "  "  "
       [416]   2  "  "  "  "  "  "  "  "  "  "  "  "  "  4  "  "  "  "  "  17  "  "  "  "  2  "  "  "
       [448]  11  "  "  "  14  "  "  "  15  "  "  "  "  2  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "
       [480]   2  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  3  "  "  "  "  "
       [512]   2  "  "  "  "  "  "  "  "  1  "  "  "  2  "  "  "  "  "  "  "  "  "  "  "  "  "  "
       [544]   2  "  "  "  "  10  "  "  "  "  "  9  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "
       [576]   7  "  "  "  "  "  3  "  "  "  "  1  "  "  "  "  2  "  "  "  "  "  "  "  "  "  "  "
       [608]   2  "  "  "  "  "  "  "  "  "  "  "  "  "  "  1  "  "  "  2  "  "  "  "  "  "
       [640]   2  "  "  "  "  "  "  "  "  "  3  "  "  "  "  2  "  "  "  "  "  "  "  "  "
       [672]   2  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "
       [704]   3  "  "  "  2  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "
       [736]   2  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "  "
       [768]   2  "  "  "  4  "  "  "  2  "  "  "  "  "  "  "
     }
     Allocated at {
       ^1: 0x667AC7: operator new(unsigned long) (new.cpp:67)
       #2: 0xB1586F: v8::internal::wasm::WasmEngine::InitializeOncePerProcess() (wasm-engine.cc:1809)
       #3: 0x8007BF: v8::internal::V8::Initialize() (v8.cc:285)
       #4: 0x67C2C3: v8::V8::Initialize(int) (api.cc:6351)
       #5: 0x6573EF: v8::V8::initialize (V8.rs:201)
       #6: 0x25964B: deno_core::runtime::jsruntime::v8_init (jsruntime.rs:363)
       #7: 0x259C87: deno_core::runtime::jsruntime::JsRuntime::init_v8::{{closure}} (jsruntime.rs:546)
       #8: 0x23D4CB: std::sync::once::Once::call_once::{{closure}} (once.rs:149)
       #9: 0x40CFAB: std::sys_common::once::futex::Once::call (futex.rs:124)
       #10: 0x23D3AB: std::sync::once::Once::call_once (once.rs:149)
       #11: 0x259AF3: deno_core::runtime::jsruntime::JsRuntime::init_v8 (jsruntime.rs:545)
     }
   }
└─ PP 1.2.5/5 {
     Total:      520 bytes (0.02%, 17.68/Minstr) in 5 blocks (0.16%, 0.17/Minstr), avg size 104 bytes, avg lifetime 28,448,460.8 instrs (96.72% of program duration)
     Max:        520 bytes in 5 blocks, avg size 104 bytes
     At t-gmax: 520 bytes (0.08%) in 5 blocks (0.44%), avg size 104 bytes
     At t-end:  520 bytes (1.42%) in 5 blocks (0.76%), avg size 104 bytes
     Reads:      930 bytes (0.01%, 31.62/Minstr), 1.79/byte
     Writes:     720 bytes (0.02%, 24.48/Minstr), 1.38/byte
     Accesses: {
       [  0]  15  "  "  "  "  "  "  25  "  "  "  "  "  "  10  "  "  "  "  "  "  "  "  "  "  "  "  5  "  "  "
       [ 32]  10  "  "  "  "  "  "  "  "  "  "  "  "  "  28  "  "  "  "  "  "  24  "  "  "  "  "  "
       [ 64]  13  "  "  "  "  "  "  20  "  "  8  "  "  "  9  "  "  "  6  "  "  "  16  "  "  "  31  "  "  "
       [ 96]  26  "  "  "  9  "  "  "
     }
     Allocated at {
       ^1: 0x667AC7: operator new(unsigned long) (new.cpp:67)
       #2: 0x663F3B: v8::platform::DefaultWorkerThreadsTaskRunner::DefaultWorkerThreadsTaskRunner(unsigned int, double (*)(), v8::base::Thread::Priority) (default-worker-threads-task-runner.cc:18)
       #3: 0x662B63: v8::platform::DefaultPlatform::EnsureBackgroundTaskRunnerInitialized() (default-platform.cc:141)
       #4: 0x6628BF: v8::platform::NewDefaultPlatform(int, v8::platform::IdleTaskSupport, v8::platform::InProcessStackDumping, std::Cr::unique_ptr<v8::TracingController, std::Cr::default_delete<v8::TracingContr
       #5: 0x2596BF: new (platform.rs:133)
       #6: 0x2596BF: new_default_platform (platform.rs:80)
       #7: 0x2596BF: deno_core::runtime::jsruntime::v8_init::{{closure}} (jsruntime.rs:361)
       #8: 0x244ECB: core::option::Option<T>::unwrap_or_else (option.rs:979)
       #9: 0x25962F: deno_core::runtime::jsruntime::v8_init (jsruntime.rs:360)
       #10: 0x259C87: deno_core::runtime::jsruntime::JsRuntime::init_v8::{{closure}} (jsruntime.rs:546)
       #11: 0x23D4CB: std::sync::once::Once::call_once::{{closure}} (once.rs:149)
       #12: 0x40CFAB: std::sys_common::once::futex::Once::call (futex.rs:124)
       #13: 0x23D3AB: std::sync::once::Once::call_once (once.rs:149)
     }
   }
└─▼ PP 1.3/6 (2 children) {
     Total:      29,160 bytes (1.05%, 991.38/Minstr) in 91 blocks (2.91%, 3.09/Minstr), avg size 320.44 bytes, avg lifetime 25,233,096.55 instrs (85.79% of program duration)
     At t-gmax: 23,064 bytes (3.47%) in 88 blocks (7.76%), avg size 262.09 bytes
     At t-end:  3,056 bytes (8.33%) in 3 blocks (0.46%), avg size 1,018.67 bytes
     Reads:      39,574 bytes (0.35%, 1,345.44/Minstr), 1.36/byte
     Writes:     33,426 bytes (0.92%, 1,136.42/Minstr), 1.15/byte
     Allocated at {
       #1: 0x4F4ACB: alloc (alloc.rs:102)
       #2: 0x4F4ACB: alloc::alloc::Global::alloc_impl (alloc.rs:185)
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    }
  }
├──▶ PP 1.3.1/2 (3 children) {
        Total:      20,176 bytes (0.73%, 685.95/Minstr) in 11 blocks (0.35%, 0.37/Minstr), avg size 1,834.18 bytes, avg lifetime 24,244,495.82 instrs (82.43% of program duration)
        At t-gmax: 14,144 bytes (2.13%) in 10 blocks (0.88%), avg size 1,414.4 bytes
        At t-end:   3,032 bytes (8.26%) in 2 blocks (0.3%), avg size 1,516 bytes
        Reads:      24,631 bytes (0.22%, 837.41/Minstr), 1.22/byte
        Writes:     19,532 bytes (0.54%, 664.05/Minstr), 0.97/byte
        Allocated at {
          ^1: 0x4F4ACB: alloc (alloc.rs:102)
          ^2: 0x4F4ACB: alloc::alloc::Global::alloc_impl (alloc.rs:185)
          #3: 0x505323: <alloc::alloc::Global as core::alloc::Allocator>::allocate (alloc.rs:245)
        }
      }
    ├──▼ PP 1.3.1.1/3 (2 children) {
            Total:      1,896 bytes (0.07%, 64.46/Minstr) in 2 blocks (0.06%, 0.07/Minstr), avg size 948 bytes, avg lifetime 27,419,855 instrs (93.22% of program duration)
            At t-gmax: 1,896 bytes (0.29%) in 2 blocks (0.18%), avg size 948 bytes
            At t-end:   1,888 bytes (5.14%) in 1 blocks (0.15%), avg size 1,888 bytes
            Reads:      1,136 bytes (0.01%, 38.62/Minstr), 0.6/byte
            Writes:     1,136 bytes (0.03%, 38.62/Minstr), 0.6/byte
            Allocated at {
              ^1: 0x4F4ACB: alloc (alloc.rs:102)
              ^2: 0x4F4ACB: alloc::alloc::Global::alloc_impl (alloc.rs:185)
              ^3: 0x505323: <alloc::alloc::Global as core::alloc::Allocator>::allocate (alloc.rs:245)
              #4: 0x4F6E0F: alloc::raw_vec::RawVec<T,A>::allocate_in (raw_vec.rs:184)
              #5: 0x2BAB17: with_capacity_in<v8::external_references::ExternalReference, alloc::alloc::Global> (raw_vec.rs:130)
              #6: 0x2BAB17: with_capacity_in<v8::external_references::ExternalReference, alloc::alloc::Global> (mod.rs:670)
              #7: 0x2BAB17: alloc::vec::Vec<T>::with_capacity (mod.rs:479)
            }
          }
        ├──── PP 1.3.1.1.1/2 {
                Total:      1,888 bytes (0.07%, 64.19/Minstr) in 1 blocks (0.03%, 0.03/Minstr), avg size 1,888 bytes, avg lifetime 27,378,076 instrs (93.08% of program duration)
                Max:        0 bytes in 0 blocks, avg size 0 bytes
                At t-gmax: 1,888 bytes (0.28%) in 1 blocks (0.09%), avg size 1,888 bytes
                At t-end:   1,888 bytes (5.14%) in 1 blocks (0.15%), avg size 1,888 bytes
                Reads:      1,136 bytes (0.01%, 38.62/Minstr), 0.6/byte
                Writes:     1,136 bytes (0.03%, 38.62/Minstr), 0.6/byte
                Allocated at {
                  ^1: 0x4F4ACB: alloc (alloc.rs:102)
                  ^2: 0x4F4ACB: alloc::alloc::Global::alloc_impl (alloc.rs:185)
                  ^3: 0x505323: <alloc::alloc::Global as core::alloc::Allocator>::allocate (alloc.rs:245)
                  ^4: 0x4F6E0F: alloc::raw_vec::RawVec<T,A>::allocate_in (raw_vec.rs:184)
                  ^5: 0x2BAB17: with_capacity_in<v8::external_references::ExternalReference, alloc::alloc::Global> (raw_vec.rs:130)
                  ^6: 0x2BAB17: with_capacity_in<v8::external_references::ExternalReference, alloc::alloc::Global> (mod.rs:670)
                  ^7: 0x2BAB17: alloc::vec::Vec<T>::with_capacity (mod.rs:479)
                  #8: 0x291C8F: deno_core::runtime::bindings::external_references (bindings.rs:30)
                  #9: 0x25A5B3: deno_core::runtime::jsruntime::JsRuntime::new_inner (jsruntime.rs:626)
                  #10: 0x2597BF: deno_core::runtime::jsruntime::JsRuntime::new (jsruntime.rs:498)
                  #11: 0x239343: rusty_v8_memtest::main (main.rs:2)
                  #12: 0x239303: core::ops::function::FnOnce::call_once (function.rs:250)
                  #13: 0x23939F: std::sys_common::backtrace::__rust_begin_short_backtrace (backtrace.rs:135)
                  #14: 0x238F93: std::rt::lang_start::{{closure}} (rt.rs:166)
                }
              }
        ├──── PP 1.3.1.1.2/2 {
                At t-end:   0 bytes (0%)
                Allocated at {
                  [1 insignificant]
                }
              }
    ├──── PP 1.3.1.2/3 {
            Total:      1,144 bytes (0.04%, 38.89/Minstr) in 1 blocks (0.03%, 0.03/Minstr), avg size 1,144 bytes, avg lifetime 27,361,301 instrs (93.02% of program duration)
            Max:        0 bytes in 0 blocks, avg size 0 bytes
            At t-gmax: 1,144 bytes (0.17%) in 1 blocks (0.09%), avg size 1,144 bytes
            At t-end:   1,144 bytes (3.12%) in 1 blocks (0.15%), avg size 1,144 bytes
            Reads:      1,160 bytes (0.01%, 39.44/Minstr), 1.01/byte
            Writes:     1,144 bytes (0.03%, 38.89/Minstr), 1/byte
            Allocated at {
              ^1: 0x4F4ACB: alloc (alloc.rs:102)
              ^2: 0x4F4ACB: alloc::alloc::Global::alloc_impl (alloc.rs:185)
              ^3: 0x505323: <alloc::alloc::Global as core::alloc::Allocator>::allocate (alloc.rs:245)
              #4: 0x4F516B: alloc::raw_vec::RawVec<T,A>::allocate_in (raw_vec.rs:184)
              #5: 0x2B3153: with_capacity_in<isize, alloc::alloc::Global> (raw_vec.rs:130)
              #6: 0x2B3153: with_capacity_in<isize, alloc::alloc::Global> (mod.rs:670)
              #7: 0x2B3153: with_capacity<isize> (mod.rs:479)
              #8: 0x2B3153: <alloc::vec::Vec<T> as alloc::vec::spec_from_iter_nested::SpecFromIterNested<T,I>>::from_iter (spec_from_iter_nested.rs:54)
              #9: 0x2C7C6F: <alloc::vec::Vec<T> as alloc::vec::spec_from_iter::SpecFromIter<T,I>>::from_iter (spec_from_iter.rs:33)
              #10: 0x2C778F: <alloc::vec::Vec<T> as core::iter::traits::collect::FromIterator<T>>::from_iter (mod.rs:2696)
              #11: 0x2B978F: core::iter::traits::iterator::Iterator::collect (iterator.rs:1895)
```

```
              #12: 0x2920A3: new (external_references.rs:47)
              #13: 0x2920A3: deno_core::runtime::bindings::external_references (bindings.rs:79)
              #14: 0x25A5B3: deno_core::runtime::jsruntime::JsRuntime::new_inner (jsruntime.rs:626)
              #15: 0x2597BF: deno_core::runtime::jsruntime::JsRuntime::new (jsruntime.rs:498)
              #16: 0x239343: rusty_v8_memtest::main (main.rs:2)
            }
          }
        PP 1.3.1.3/3 {
          At t-end:  0 bytes (0%)
          Allocated at {
            [8 insignificant]
          }
        }
      }
    PP 1.3.2/2 {
      At t-end:  24 bytes (0.07%)
      Allocated at {
        [1 insignificant]
      }
    }
  }
PP 1.4/6 {
  Total:      3,048 bytes (0.11%, 103.63/Minstr) in 1 blocks (0.03%, 0.03/Minstr), avg size 3,048 bytes, avg lifetime 27,002,222 instrs (91.8% of program duration)
  Max:        3,048 bytes in 1 blocks, avg size 3,048 bytes
  At t-gmax: 3,048 bytes (0.46%) in 1 blocks (0.09%), avg size 3,048 bytes
  At t-end:  3,048 bytes (8.3%) in 1 blocks (0.15%), avg size 3,048 bytes
  Reads:       28 bytes (0%, 0.95/Minstr), 0.01/byte
  Writes:    2,560 bytes (0.07%, 87.04/Minstr), 0.84/byte
  Allocated at {
    #1: 0xC2D87F: _uhash_create(int (*)(UElement), signed char (*)(UElement, UElement), signed char (*)(UElement, UElement), int, UErrorCode*) (uhash.cpp:296)
    #2: 0xC04757: icu_73::locale_set_default_internal(char const*, UErrorCode&) (locid.cpp:200)
    #3: 0xC04A5B: icu_73::Locale::init(char const*, signed char) (locid.cpp:1845)
    #4: 0x711EA7: v8::internal::Isolate::DefaultLocale() (isolate.cc:6036)
    #5: 0x717C9F: v8::internal::LocalIsolate::LocalIsolate(v8::internal::Isolate*, v8::internal::ThreadKind) (local-isolate.cc:28)
    #6: 0x70DB47: v8::internal::Isolate::Init(v8::internal::SnapshotData*, v8::internal::SnapshotData*, v8::internal::SnapshotData*, bool) (isolate.cc:4460)
    #7: 0x70E5BF: v8::internal::Isolate::InitWithSnapshot(v8::internal::SnapshotData*, v8::internal::SnapshotData*, v8::internal::SnapshotData*, bool) (isolate.cc:4178)
    #8: 0xA69403: v8::internal::Snapshot::Initialize(v8::internal::Isolate*) (snapshot.cc:199)
    #9: 0x68291B: v8::Isolate::Initialize(v8::Isolate*, v8::Isolate::CreateParams const&) (api.cc:9369)
    #10: 0x682A3B: v8::Isolate::New(v8::Isolate::CreateParams const&) (api.cc:9405)
    #11: 0x659A9F: v8::isolate::Isolate::new (isolate.rs:576)
  }
}
PP 1.5/6 {
  Total:      1,440 bytes (0.05%, 48.96/Minstr) in 5 blocks (0.16%, 0.17/Minstr), avg size 288 bytes, avg lifetime 28,447,524.4 instrs (96.72% of program duration)
  Max:        1,440 bytes in 5 blocks, avg size 288 bytes
  At t-gmax: 1,440 bytes (0.22%) in 5 blocks (0.44%), avg size 288 bytes
  At t-end:  1,440 bytes (3.92%) in 5 blocks (0.76%), avg size 288 bytes
  Reads:       40 bytes (0%, 1.36/Minstr), 0.03/byte
  Writes:     320 bytes (0.01%, 10.88/Minstr), 0.22/byte
  Accesses: {
    [  0] 10 " " " " " " " " - - - - - - - 5 " " " " " " " - - - - - - - -
    [ 32] 10 " " " " " " " 5 " " " " " " " 10 " " " " " " " 5 " " " " " " "
    [ 64] - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
    [ 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: 0xE862CF: v8::base::Thread::Start() (platform-posix.cc:1198)
    #7: 0x663F67: v8::platform::DefaultWorkerThreadsTaskRunner::DefaultWorkerThreadsTaskRunner(unsigned int, double (*)(), v8::base::Thread::Priority) (default-worker-threads-task-runner.cc:18)
    #8: 0x662B63: v8::platform::DefaultPlatform::EnsureBackgroundTaskRunnerInitialized() (default-platform.cc:141)
    #9: 0x6628BF: v8::platform::NewDefaultPlatform(int, v8::platform::IdleTaskSupport, v8::platform::InProcessStackDumping, std::Cr::unique_ptr<v8::TracingController, std::Cr::default_delete<v8::TracingControlle
    #10: 0x2596BF: new (platform.rs:133)
    #11: 0x2596BF: new_default_platform (platform.rs:80)
    #12: 0x2596BF: deno_core::runtime::jsruntime::v8_init::{{closure}} (jsruntime.rs:361)
    #13: 0x244ECB: core::option::Option<T>::unwrap_or_else (option.rs:979)
    #14: 0x25962F: deno_core::runtime::jsruntime::v8_init (jsruntime.rs:360)
    #15: 0x259C87: deno_core::runtime::jsruntime::JsRuntime::init_v8::{{closure}} (jsruntime.rs:546)
  }
}
PP 1.6/6 {
  At t-end:  558 bytes (1.52%)
```

```
        Allocated at {
          [33 insignificant]
        }
      }
    }
```

PP significance threshold: at-t-end >= 367.01 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
- ' ″ ' (in accesses): same as previous entry

Processing time: read:n/a + parse:n/a + build:n/a + display:5.7ms = total:5.7ms