File
Load…

Sort metric
At t-end (bytes)

```
Invocation {
  Mode:    heap
  Command: ./target/debug/rusty-v8-memtest
  PID:     29649
}

Times {
  t-gmax: 275,589,199 instrs (90.88% of program duration)
  t-end:  303,230,898 instrs
}

▼ PP 1/1 (4 children) {
    Total:     3,570,441 bytes (100%, 11,774.66/Minstr) in 9,129 blocks (100%, 30.11/Minstr), avg size 391.11 bytes, avg lifetime 26,479,992.37 instrs (8.73% of program duration)
    At t-gmax: 825,414 bytes (100%) in 1,118 blocks (100%), avg size 738.3 bytes
    At t-end:  15,725 bytes (100%) in 549 blocks (100%), avg size 28.64 bytes
    Reads:     33,955,905 bytes (100%, 111,980.36/Minstr), 9.51/byte
    Writes:    24,576,913 bytes (100%, 81,050.16/Minstr), 6.88/byte
    Allocated at {
      #0: [root]
    }
  }
  ▼ PP 1.1/4 (11 children) {
      Total:     1,628,811 bytes (45.62%, 5,371.52/Minstr) in 8,839 blocks (96.82%, 29.15/Minstr), avg size 184.28 bytes, avg lifetime 25,991,109.44 instrs (8.57% of program duration)
      At t-gmax: 375,248 bytes (45.46%) in 1,060 blocks (94.81%), avg size 354.01 bytes
      At t-end:  10,687 bytes (67.96%) in 525 blocks (95.63%), avg size 20.36 bytes
      Reads:     28,458,499 bytes (83.81%, 93,850.92/Minstr), 17.47/byte
      Writes:    19,850,715 bytes (80.77%, 65,464.02/Minstr), 12.19/byte
      Allocated at {
        #1: 0x6FC1C7: operator new(unsigned long) (new.cpp:67)
      }
    }
    ── PP 1.1.1/11 {
         Total:     4,096 bytes (0.11%, 13.51/Minstr) in 1 blocks (0.01%, 0/Minstr), avg size 4,096 bytes, avg lifetime 162,583,116 instrs (53.62% of program duration)
         Max:       0 bytes in 0 blocks, avg size 0 bytes
         At t-gmax: 4,096 bytes (0.5%) in 1 blocks (0.09%), avg size 4,096 bytes
         At t-end:  4,096 bytes (26.05%) in 1 blocks (0.18%), avg size 4,096 bytes
         Reads:     16 bytes (0%, 0.05/Minstr), 0/byte
         Writes:    24 bytes (0%, 0.08/Minstr), 0.01/byte
         Allocated at {
           ^1: 0x6FC1C7: operator new(unsigned long) (new.cpp:67)
           #2: 0x6A29E7: 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: 0x6A1E97: v8::platform::DelayedTaskQueue::Append(std::Cr::unique_ptr<v8::Task, std::Cr::default_delete<v8::Task> >) (delayed-task-queue.cc:28)
           #4: 0x6A148B: v8::platform::DefaultWorkerThreadsTaskRunner::PostTask(std::Cr::unique_ptr<v8::Task, std::Cr::default_delete<v8::Task> >) (default-worker-threads-task-runner.cc:42)
           #5: 0x68860F: v8::Platform::CallOnWorkerThread(std::Cr::unique_ptr<v8::Task, std::Cr::default_delete<v8::Task> >) (v8-platform.h:1082)
           #6: 0x18FBFEB: v8::platform::DefaultJobState::NotifyConcurrencyIncrease() (default-job.cc:59)
           #7: 0x195FEEF: v8::internal::baseline::BaselineBatchCompiler::CompileBatchConcurrent(v8::internal::Tagged<v8::internal::SharedFunctionInfo>) (baseline-batch-compiler.cc:328)
           #8: 0x1AA7117: v8::internal::TieringManager::OnInterruptTick(v8::internal::Handle<v8::internal::JSFunction>, v8::internal::CodeKind) (tiering-manager.cc:431)
           #9: 0x1BFEBDF: v8::internal::(anonymous namespace)::BytecodeBudgetInterruptWithStackCheck(v8::internal::Isolate*, v8::internal::Arguments<(v8::internal::ArgumentsType)0>&, v8::internal::CodeKind) (runtim
           #10: 0x1BFA70F: v8::internal::Runtime_BytecodeBudgetInterruptWithStackCheck_Ignition(int, unsigned long*, v8::internal::Isolate*) (runtime-internal.cc:434)
           #11: 0x1401ABF: Builtins_CEntry_Return1_ArgvOnStack_NoBuiltinExit (in /opt/rusty-v8-memtest/target/debug/rusty-v8-memtest)
         }
       }
    ▼ PP 1.1.2/11 (2 children) {
         Total:     404,242 bytes (11.32%, 1,333.12/Minstr) in 692 blocks (7.58%, 2.28/Minstr), avg size 584.16 bytes, avg lifetime 186,204,796.86 instrs (61.41% of program duration)
         At t-gmax: 30,806 bytes (3.73%) in 432 blocks (38.64%), avg size 71.31 bytes
         At t-end:  3,006 bytes (19.12%) in 418 blocks (76.14%), avg size 7.19 bytes
         Reads:     3,345,876 bytes (9.85%, 11,034.09/Minstr), 8.28/byte
         Writes:    665,820 bytes (2.71%, 2,195.75/Minstr), 1.65/byte
         Allocated at {
           ^1: 0x6FC1C7: operator new(unsigned long) (new.cpp:67)
           #2: 0x6FC2D3: operator new[](unsigned long) (new.cpp:107)
         }
       }
       ▼ PP 1.1.2.1/2 (3 children) {
            Total:     170,194 bytes (4.77%, 561.27/Minstr) in 570 blocks (6.24%, 1.88/Minstr), avg size 298.59 bytes, avg lifetime 222,838,753.11 instrs (73.49% of program duration)
            At t-gmax: 29,646 bytes (3.59%) in 423 blocks (37.84%), avg size 70.09 bytes
            At t-end:  3,006 bytes (19.12%) in 418 blocks (76.14%), avg size 7.19 bytes
            Reads:     2,551,252 bytes (7.51%, 8,413.56/Minstr), 14.99/byte
            Writes:    370,145 bytes (1.51%, 1,220.67/Minstr), 2.17/byte
            Allocated at {
              ^1: 0x6FC1C7: operator new(unsigned long) (new.cpp:67)
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                    ^2: 0x6FC2D3: operator new[](unsigned long) (new.cpp:107)
                    #3: 0x6FC30F: operator new[](unsigned long, std::nothrow_t const&) (new.cpp:119)
                  }
                }
            ▼─ PP 1.1.2.1.1/3 (1 children) {
                  Total:      2,554 bytes (0.07%, 8.42/Minstr) in 351 blocks (3.84%, 1.16/Minstr), avg size 7.28 bytes, avg lifetime 301,375,122.73 instrs (99.39% of program duration)
                  At t-gmax: 2,554 bytes (0.31%) in 351 blocks (31.4%), avg size 7.28 bytes
                  At t-end:  2,554 bytes (16.24%) in 351 blocks (63.93%), avg size 7.28 bytes
                  Reads:      44 bytes (0%, 0.15/Minstr), 0.02/byte
                  Writes:     5,108 bytes (0.02%, 16.85/Minstr), 2/byte
                  Allocated at {
                    ^1: 0x6FC1C7: operator new(unsigned long) (new.cpp:67)
                    ^2: 0x6FC2D3: operator new[](unsigned long) (new.cpp:107)
                    ^3: 0x6FC30F: operator new[](unsigned long, std::nothrow_t const&) (new.cpp:119)
                    #4: 0x7CCD1F: v8::internal::CallInterfaceDescriptorData::InitializeTypes(v8::internal::MachineType const*, int) (interface-descriptors.cc:78)
                  }
                }
              └── PP 1.1.2.1.1.1/1 {
                    At t-end:  2,554 bytes (16.24%)
                    Allocated at {
                      [351 insignificant]
                    }
                  }
            ▼─ PP 1.1.2.1.2/3 (1 children) {
                  Total:       452 bytes (0.01%, 1.49/Minstr) in 67 blocks (0.73%, 0.22/Minstr), avg size 6.75 bytes, avg lifetime 301,416,443.3 instrs (99.4% of program duration)
                  At t-gmax: 452 bytes (0.05%) in 67 blocks (5.99%), avg size 6.75 bytes
                  At t-end:   452 bytes (2.87%) in 67 blocks (12.2%), avg size 6.75 bytes
                  Reads:      2 bytes (0%, 0.01/Minstr), 0/byte
                  Writes:     452 bytes (0%, 1.49/Minstr), 1/byte
                  Allocated at {
                    ^1: 0x6FC1C7: operator new(unsigned long) (new.cpp:67)
                    ^2: 0x6FC2D3: operator new[](unsigned long) (new.cpp:107)
                    ^3: 0x6FC30F: operator new[](unsigned long, std::nothrow_t const&) (new.cpp:119)
                    #4: 0x7CCDD7: v8::internal::CallInterfaceDescriptorData::InitializeTypes(v8::internal::MachineType const*, int) (interface-descriptors.cc:75)
                  }
                }
              └── PP 1.1.2.1.2.1/1 {
                    At t-end:  452 bytes (2.87%)
                    Allocated at {
                      [67 insignificant]
                    }
                  }
              └── PP 1.1.2.1.3/3 {
                    At t-end:  0 bytes (0%)
                    Allocated at {
                      [7 insignificant]
                    }
                  }
                }
          └── PP 1.1.2.2/2 {
                At t-end:  0 bytes (0%)
                Allocated at {
                  [10 insignificant]
                }
              }
            }
      ─── PP 1.1.3/11 {
            At t-end:  1,289 bytes (8.2%)
            Allocated at {
              [256 insignificant]
            }
          }
        }
      ─── PP 1.1.4/11 {
            Total:       520 bytes (0.01%, 1.71/Minstr) in 5 blocks (0.05%, 0.02/Minstr), avg size 104 bytes, avg lifetime 301,766,246 instrs (99.52% of program duration)
            Max:         520 bytes in 5 blocks, avg size 104 bytes
            At t-gmax: 520 bytes (0.06%) in 5 blocks (0.45%), avg size 104 bytes
            At t-end:  520 bytes (3.31%) in 5 blocks (0.91%), avg size 104 bytes
            Reads:      1,098 bytes (0%, 3.62/Minstr), 2.11/byte
            Writes:     748 bytes (0%, 2.47/Minstr), 1.44/byte
            Accesses: {
              [  0]  15  〃  〃  〃  〃  〃  〃  30  〃  〃  〃  〃  〃  〃  10  〃  〃  〃  〃  〃  〃  〃  〃  〃  〃  〃  5  〃
              [ 32]  15  〃  〃  10  〃  〃  〃  〃  〃  〃  〃  〃  〃  〃  31  〃  〃  〃  〃  〃  〃  27  〃  〃  〃  〃  〃  〃
              [ 64]  15  〃  〃  〃  〃  〃  23  〃  〃  〃  11  〃  〃  〃  9  〃  〃  〃  6  〃  〃  〃  16  〃  〃  〃  37  〃  〃  〃
              [ 96]  29  〃  〃  〃  12  〃  〃  〃
            }
            Allocated at {
              ^1: 0x6FC1C7: operator new(unsigned long) (new.cpp:67)
              #2: 0x6A11DF: v8::platform::DefaultWorkerThreadsTaskRunner::DefaultWorkerThreadsTaskRunner(unsigned int, double (*)(), v8::base::Thread::Priority) (default-worker-threads-task-runner.cc:18)
              #3: 0x69F913: v8::platform::DefaultPlatform::EnsureBackgroundTaskRunnerInitialized() (default-platform.cc:141)
              #4: 0x69F0EB: v8::platform::NewDefaultPlatform(int, v8::platform::IdleTaskSupport, v8::platform::InProcessStackDumping, std::Cr::unique_ptr<v8::TracingController, std::Cr::default_delete<v8::TracingContr
```

```
            #5: 0x679EAB: v8__Platform__NewDefaultPlatform (binding.cc:2643)
            #6: 0x268853: new (platform.rs:133)
            #7: 0x268853: new_default_platform (platform.rs:80)
            #8: 0x268853: deno_core::runtime::jsruntime::v8_init::{{closure}} (jsruntime.rs:361)
            #9: 0x25405F: core::option::Option<T>::unwrap_or_else (option.rs:979)
            #10: 0x2687C3: deno_core::runtime::jsruntime::v8_init (jsruntime.rs:360)
            #11: 0x268E1B: deno_core::runtime::jsruntime::JsRuntime::init_v8::{{closure}} (jsruntime.rs:546)
            #12: 0x24C65F: std::sync::once::Once::call_once::{{closure}} (once.rs:149)
            #13: 0x41C13F: std::sys_common::once::futex::Once::call (futex.rs:124)
          }
        }
─── PP 1.1.5/11 {
          Total:       352 bytes (0.01%, 1.16/Minstr) in 1 blocks (0.01%, 0/Minstr), avg size 352 bytes, avg lifetime 301,502,541 instrs (99.43% of program duration)
          Max:         352 bytes in 1 blocks, avg size 352 bytes
          At t-gmax: 352 bytes (0.04%) in 1 blocks (0.09%), avg size 352 bytes
          At t-end:   352 bytes (2.24%) in 1 blocks (0.18%), avg size 352 bytes
          Reads:       289 bytes (0%, 0.95/Minstr), 0.82/byte
          Writes:      350 bytes (0%, 1.15/Minstr), 0.99/byte
          Accesses: {
            [  0] 3 ″ ″ ″ ″ ″ ″ 1 ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″
            [ 32] 1 ″ ″ ″ – – – – 1 ″ ″ ″ ″ ″ ″ 2 3 2 ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″
            [ 64] 2 ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″
            [ 96] 2 ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″
            [128] 2 ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″
            [160] 2 ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″
            [192] 2 ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″
            [224] 2 ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″
            [256] 2 ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″
            [288] 2 ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″
            [320] 2 ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ – – – – – – – – – – – – – – –
          }
          Allocated at {
            ^1: 0x6FC1C7: operator new(unsigned long) (new.cpp:67)
            #2: 0x9FB427: v8::internal::Bootstrapper::InitializeOncePerProcess() (bootstrapper.cc:153)
            #3: 0xA2A6A3: v8::internal::V8::Initialize() (v8.cc:276)
            #4: 0x76EF5F: v8::V8::Initialize(int) (api.cc:6351)
            #5: 0x67CBCB: v8::V8::Initialize() (v8-initialization.h:104)
            #6: 0x66F263: v8__V8__Initialize (binding.cc:145)
            #7: 0x666583: v8::V8::initialize (V8.rs:201)
            #8: 0x2687DF: deno_core::runtime::jsruntime::v8_init (jsruntime.rs:363)
            #9: 0x268E1B: deno_core::runtime::jsruntime::JsRuntime::init_v8::{{closure}} (jsruntime.rs:546)
            #10: 0x24C65F: std::sync::once::Once::call_once::{{closure}} (once.rs:149)
            #11: 0x41C13F: std::sys_common::once::futex::Once::call (futex.rs:124)
          }
        }
▼─ PP 1.1.6/11 (2 children) {
          Total:       384 bytes (0.01%, 1.27/Minstr) in 6 blocks (0.07%, 0.02/Minstr), avg size 64 bytes, avg lifetime 292,964,583.5 instrs (96.61% of program duration)
          At t-gmax: 384 bytes (0.05%) in 6 blocks (0.54%), avg size 64 bytes
          At t-end:   320 bytes (2.03%) in 5 blocks (0.91%), avg size 64 bytes
          Reads:       972 bytes (0%, 3.21/Minstr), 2.53/byte
          Writes:      748 bytes (0%, 2.47/Minstr), 1.95/byte
          Accesses: {
            [  0] 21 ″ ″ ″ ″ ″ ″ 66 ″ ″ ″ ″ 6 ″ ″ ″ ″ 56 ″ ″ ″ ″ 47 ″ ″ ″ ″ 104 ″ ″ ″ ″ 6 ″ ″ ″ ″
            [ 32] 6 ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ 67 ″ ″ ″ – – – –
          }
          Allocated at {
            ^1: 0x6FC1C7: operator new(unsigned long) (new.cpp:67)
            #2: 0x69CBAB: v8::base::Thread::Thread(v8::base::Thread::Options const&) (platform-posix.cc:1090)
          }
        }
      ─── PP 1.1.6.1/2 {
            Total:       320 bytes (0.01%, 1.06/Minstr) in 5 blocks (0.05%, 0.02/Minstr), avg size 64 bytes, avg lifetime 301,766,166 instrs (99.52% of program duration)
            Max:         320 bytes in 5 blocks, avg size 64 bytes
            At t-gmax: 320 bytes (0.04%) in 5 blocks (0.45%), avg size 64 bytes
            At t-end:   320 bytes (2.03%) in 5 blocks (0.91%), avg size 64 bytes
            Reads:       960 bytes (0%, 3.17/Minstr), 3/byte
            Writes:      680 bytes (0%, 2.24/Minstr), 2.13/byte
            Accesses: {
              [  0] 20 ″ ″ ″ ″ ″ ″ 65 ″ ″ ″ ″ 5 ″ ″ ″ ″ 55 ″ ″ ″ ″ 45 ″ ″ ″ ″ 100 ″ ″ ″ ″ 5 ″ ″ ″ ″
              [ 32] 5 ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ 65 ″ ″ ″ – – – –
            }
            Allocated at {
              ^1: 0x6FC1C7: operator new(unsigned long) (new.cpp:67)
              ^2: 0x69CBAB: v8::base::Thread::Thread(v8::base::Thread::Options const&) (platform-posix.cc:1090)
              #3: 0x6A11F3: v8::platform::DefaultWorkerThreadsTaskRunner::DefaultWorkerThreadsTaskRunner(unsigned int, double (*)(), v8::base::Thread::Priority) (default-worker-threads-task-runner.cc:18)
              #4: 0x69F913: v8::platform::DefaultPlatform::EnsureBackgroundTaskRunnerInitialized() (default-platform.cc:141)
```

```
        #5: 0x69F0EB: v8::platform::NewDefaultPlatform(int, v8::platform::IdleTaskSupport, v8::platform::InProcessStackDumping, std::Cr::unique_ptr<v8::TracingController, std::Cr::default_delete<v8::TracingC
        #6: 0x679EAB: v8__Platform__NewDefaultPlatform (binding.cc:2643)
        #7: 0x268853: new (platform.rs:133)
        #8: 0x268853: new_default_platform (platform.rs:80)
        #9: 0x268853: deno_core::runtime::jsruntime::v8_init::{{closure}} (jsruntime.rs:361)
        #10: 0x25405F: core::option::Option<T>::unwrap_or_else (option.rs:979)
        #11: 0x2687C3: deno_core::runtime::jsruntime::v8_init (jsruntime.rs:360)
        #12: 0x268E1B: deno_core::runtime::jsruntime::JsRuntime::init_v8::{{closure}} (jsruntime.rs:546)
        #13: 0x24C65F: std::sync::once::Once::call_once::{{closure}} (once.rs:149)
      }
    }
    └─ PP 1.1.6.2/2 {
         At t-end:  0 bytes (0%)
         Allocated at {
           [1 insignificant]
         }
       }
     }
  ├─ PP 1.1.7/11 {
       Total:     296 bytes (0.01%, 0.98/Minstr) in 1 blocks (0.01%, 0/Minstr), avg size 296 bytes, avg lifetime 248,935,790 instrs (82.09% of program duration)
       Max:       0 bytes in 0 blocks, avg size 0 bytes
       At t-gmax: 296 bytes (0.04%) in 1 blocks (0.09%), avg size 296 bytes
       At t-end:  296 bytes (1.88%) in 1 blocks (0.18%), avg size 296 bytes
       Reads:     236 bytes (0%, 0.78/Minstr), 0.8/byte
       Writes:    389 bytes (0%, 1.28/Minstr), 1.31/byte
       Accesses: {
         [  0]  1 ″ ″ ″ ″ ″ ″ 43 ″ ″ ″ ″ ″ ″ ″ 1 ″ ″ ″ ″ ″ ″ ″ 2 ″ ″ ″ ″ ″ ″ ″
         [ 32]  1 - - - - - - - 1 ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ 2 ″ ″ 1 ″ ″ ″
         [ 64]  1 ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ - - - -
         [ 96]  1 ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″
         [128]  1 ″ ″ ″ ″ 3 ″ ″ ″ 1 ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ - - - - 1 ″ ″ ″ ″ ″ ″
         [160]  1 ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″
         [192]  1 ″ ″ ″ ″ ″ ″ ″ ″ ″ - - - - 1 ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″
         [224]  1 ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″
         [256]  1 ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ - - - - - - - -
         [288]  1 ″ ″ ″ ″ ″ ″ ″
       }
       Allocated at {
         ^1: 0x6FC1C7: operator new(unsigned long) (new.cpp:67)
         #2: 0x69FDA7: v8::platform::DefaultPlatform::GetForegroundTaskRunner(v8::Isolate*) (default-platform.cc:206)
         #3: 0x91D80B: v8::internal::Heap::SetUp(v8::internal::LocalHeap*) (heap.cc:5439)
         #4: 0x88BA1F: v8::internal::Isolate::Init(v8::internal::SnapshotData*, v8::internal::SnapshotData*, v8::internal::SnapshotData*, bool) (isolate.cc:4494)
         #5: 0x88CA43: v8::internal::Isolate::InitWithSnapshot(v8::internal::SnapshotData*, v8::internal::SnapshotData*, v8::internal::SnapshotData*, bool) (isolate.cc:4178)
         #6: 0xE96EF7: v8::internal::Snapshot::Initialize(v8::internal::Isolate*) (snapshot.cc:199)
         #7: 0x78603F: v8::Isolate::Initialize(v8::Isolate*, v8::Isolate::CreateParams const&) (api.cc:9369)
         #8: 0x7863E7: v8::Isolate::New(v8::Isolate::CreateParams const&) (api.cc:9405)
         #9: 0x66F2C7: v8__Isolate__New (binding.cc:152)
         #10: 0x668C33: v8::isolate::Isolate::new (isolate.rs:576)
         #11: 0x269B47: deno_core::runtime::jsruntime::JsRuntime::new_inner (jsruntime.rs:652)
       }
     }
  ├─ PP 1.1.8/11 {
       Total:     288 bytes (0.01%, 0.95/Minstr) in 1 blocks (0.01%, 0/Minstr), avg size 288 bytes, avg lifetime 301,771,810 instrs (99.52% of program duration)
       Max:       0 bytes in 0 blocks, avg size 0 bytes
       At t-gmax: 288 bytes (0.03%) in 1 blocks (0.09%), avg size 288 bytes
       At t-end:  288 bytes (1.83%) in 1 blocks (0.18%), avg size 288 bytes
       Reads:     1,648 bytes (0%, 5.43/Minstr), 5.72/byte
       Writes:    786 bytes (0%, 2.59/Minstr), 2.73/byte
       Accesses: {
         [  0]  1 ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ 2 ″ ″ ″ ″ ″ ″
         [ 32]  2 - - - - - - - 52 ″ ″ ″ 1 ″ ″ ″ 41 ″ ″ ″ 19 ″ ″ ″ 73 ″ ″ ″ 1 ″ ″ ″
         [ 64]  1 ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ 49 ″ ″ ″ - - - -
         [ 96]  19 ″ ″ ″ ″ ″ ″ ″ 20 ″ ″ ″ ″ ″ ″ ″ 11 ″ ″ ″ ″ ″ ″ ″ 16 ″ ″ ″ ″ ″ ″ ″
         [128]  22 ″ ″ ″ ″ ″ ″ ″ 14 ″ ″ ″ ″ ″ ″ ″ 4 ″ ″ ″ ″ ″ ″ ″ 8 ″ ″ ″ ″ ″ ″ ″
         [160]  6 ″ ″ ″ ″ ″ ″ ″ 4 ″ ″ ″ ″ ″ ″ ″ 8 ″ ″ ″ ″ ″ ″ ″ 14 ″ ″ ″ ″ ″ ″ ″
         [192]  1 ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ 14 ″ ″ ″ ″ ″ ″ ″ 8 - - - - - - -
         [224]  8 ″ ″ ″ ″ ″ ″ ″ 1 ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″
         [256]  1 ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″ ″
       }
       Allocated at {
         ^1: 0x6FC1C7: operator new(unsigned long) (new.cpp:67)
         #2: 0x69F8E7: v8::platform::DefaultPlatform::EnsureBackgroundTaskRunnerInitialized() (default-platform.cc:141)
         #3: 0x69F0EB: v8::platform::NewDefaultPlatform(int, v8::platform::IdleTaskSupport, v8::platform::InProcessStackDumping, std::Cr::unique_ptr<v8::TracingController, std::Cr::default_delete<v8::TracingContr
         #4: 0x679EAB: v8__Platform__NewDefaultPlatform (binding.cc:2643)
         #5: 0x268853: new (platform.rs:133)
         #6: 0x268853: new_default_platform (platform.rs:80)
```

```
          #7: 0x268853: deno_core::runtime::jsruntime::v8_init::{{closure}} (jsruntime.rs:361)
          #8: 0x25405F: core::option::Option<T>::unwrap_or_else (option.rs:979)
          #9: 0x2687C3: deno_core::runtime::jsruntime::v8_init (jsruntime.rs:360)
          #10: 0x268E1B: deno_core::runtime::jsruntime::JsRuntime::init_v8::{{closure}} (jsruntime.rs:546)
          #11: 0x24C65F: std::sync::once::Once::call_once::{{closure}} (once.rs:149)
          #12: 0x41C13F: std::sys_common::once::futex::Once::call (futex.rs:124)
          #13: 0x24C53F: std::sync::once::Once::call_once (once.rs:149)
        }
    }
─── PP 1.1.9/11 {
      Total:      184 bytes (0.01%, 0.61/Minstr) in 1 blocks (0.01%, 0/Minstr), avg size 184 bytes, avg lifetime 301,773,425 instrs (99.52% of program duration)
      Max:          0 bytes in 0 blocks, avg size 0 bytes
      At t-gmax: 184 bytes (0.02%) in 1 blocks (0.09%), avg size 184 bytes
      At t-end:  184 bytes (1.17%) in 1 blocks (0.18%), avg size 184 bytes
      Reads:      795 bytes (0%, 2.62/Minstr), 4.32/byte
      Writes:     289 bytes (0%, 0.95/Minstr), 1.57/byte
      Accesses: {
        [  0] 36 " " " " " " 13 " " " 1 " " " 11 " " " 9 " " " 20 " " " 1 " " "
        [ 32] 1 " " " " " " " " " " " " " " " " " " " " " " " " " 13 " " " – – – –
        [ 64] 6 " " " 2 " " " 5 " " " " " " " 3 " " " " " " " 1 " " " " " "
        [ 96] 1 " " " " " " " " " " " " " " " " " " " " " 3 " " " " " " " "
        [128] 13 " " " " " " " 3 " " " " " " " 20 " " " " " " " " 2 " " " " " "
        [160] 1 " " " " " " " 4 – – – – – – – 4 " " " " " " " "
      }
      Allocated at {
        ^1: 0x6FC1C7: operator new(unsigned long) (new.cpp:67)
        #2: 0x69F0D3: v8::platform::NewDefaultPlatform(int, v8::platform::IdleTaskSupport, v8::platform::InProcessStackDumping, std::Cr::unique_ptr<v8::TracingController, std::Cr::default_delete<v8::TracingContr
        #3: 0x679EAB: v8__Platform__NewDefaultPlatform (binding.cc:2643)
        #4: 0x268853: new (platform.rs:133)
        #5: 0x268853: new_default_platform (platform.rs:80)
        #6: 0x268853: deno_core::runtime::jsruntime::v8_init::{{closure}} (jsruntime.rs:361)
        #7: 0x25405F: core::option::Option<T>::unwrap_or_else (option.rs:979)
        #8: 0x2687C3: deno_core::runtime::jsruntime::v8_init (jsruntime.rs:360)
        #9: 0x268E1B: deno_core::runtime::jsruntime::JsRuntime::init_v8::{{closure}} (jsruntime.rs:546)
        #10: 0x24C65F: std::sync::once::Once::call_once::{{closure}} (once.rs:149)
        #11: 0x41C13F: std::sys_common::once::futex::Once::call (futex.rs:124)
        #12: 0x24C53F: std::sync::once::Once::call_once (once.rs:149)
        #13: 0x268C87: deno_core::runtime::jsruntime::JsRuntime::init_v8 (jsruntime.rs:545)
      }
    }
─── PP 1.1.10/11 {
      Total:      176 bytes (0%, 0.58/Minstr) in 11 blocks (0.12%, 0.04/Minstr), avg size 16 bytes, avg lifetime 300,080,353.27 instrs (98.96% of program duration)
      Max:        176 bytes in 11 blocks, avg size 16 bytes
      At t-gmax: 176 bytes (0.02%) in 11 blocks (0.98%), avg size 16 bytes
      At t-end:  176 bytes (1.12%) in 11 blocks (2%), avg size 16 bytes
      Reads:        0 bytes (0%, 0/Minstr), 0/byte
      Writes:     176 bytes (0%, 0.58/Minstr), 1/byte
      Accesses: {
        [  0] 11 " " " " " " " " " " " " " " "
      }
      Allocated at {
        ^1: 0x6FC1C7: operator new(unsigned long) (new.cpp:67)
        #2: 0x67EBCF: std::Cr::__unique_if<v8::CFunctionInfo>::__unique_single std::Cr::make_unique[abi:v160000]<v8::CFunctionInfo, v8::CFunctionInfo>(v8::CFunctionInfo&&) (unique_ptr.h:670)
        #3: 0x67750B: v8__CFunctionInfo__New (binding.cc:2051)
        #4: 0x4BC293: new (fast_api.rs:40)
        #5: 0x4BC293: deno_core::ops::OpCtx::new (ops.rs:192)
        #6: 0x26C327: deno_core::runtime::jsruntime::JsRuntime::new_inner::{{closure}} (jsruntime.rs:611)
        #7: 0x3A2153: core::iter::adapters::map::map_fold::{{closure}} (map.rs:84)
        #8: 0x24874F: <core::iter::adapters::enumerate::Enumerate<I> as core::iter::traits::iterator::Iterator>::fold::enumerate::{{closure}} (enumerate.rs:107)
        #9: 0x41CE73: core::iter::traits::iterator::Iterator::fold (iterator.rs:2481)
        #10: 0x24869B: <core::iter::adapters::enumerate::Enumerate<I> as core::iter::traits::iterator::Iterator>::fold (enumerate.rs:113)
        #11: 0x3904C3: <core::iter::adapters::map::Map<I,F> as core::iter::traits::iterator::Iterator>::fold (map.rs:124)
        #12: 0x3A1933: core::iter::traits::iterator::Iterator::for_each (iterator.rs:856)
      }
    }
└─▼ PP 1.1.11/11 (1 children) {
      Total:      160 bytes (0%, 0.53/Minstr) in 5 blocks (0.05%, 0.02/Minstr), avg size 32 bytes, avg lifetime 301,497,791.8 instrs (99.43% of program duration)
      At t-gmax: 160 bytes (0.02%) in 5 blocks (0.45%), avg size 32 bytes
      At t-end:  160 bytes (1.02%) in 5 blocks (0.91%), avg size 32 bytes
      Reads:        0 bytes (0%, 0/Minstr), 0/byte
      Writes:     160 bytes (0%, 0.53/Minstr), 1/byte
      Accesses: {
        [  0] 5 " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " "
      }
      Allocated at {
        ^1: 0x6FC1C7: operator new(unsigned long) (new.cpp:67)
        #2: 0x73CDFF: v8::Extension::Extension(char const*, char const*, int, char const**, int) (api.cc:675)
```

```
          }
        }
        └── PP 1.1.11.1/1 {
              At t-end:  160 bytes (1.02%)
              Allocated at {
                [5 insignificant]
              }
            }
  }
▼ PP 1.2/4 (3 children) {
    Total:      3,430 bytes (0.1%, 11.31/Minstr) in 5 blocks (0.05%, 0.02/Minstr), avg size 686 bytes, avg lifetime 259,562,271 instrs (85.6% of program duration)
    At t-gmax: 3,430 bytes (0.42%) in 5 blocks (0.45%), avg size 686 bytes
    At t-end:  3,430 bytes (21.81%) in 5 blocks (0.91%), avg size 686 bytes
    Reads:      608 bytes (0%, 2.01/Minstr), 0.18/byte
    Writes:    2,880 bytes (0.01%, 9.5/Minstr), 0.84/byte
    Allocated at {
      #1: 0x1034B03: uprv_malloc_73 (cmemory.cpp:58)
    }
  }
  ├── PP 1.2.1/3 {
  │     Total:      3,048 bytes (0.09%, 10.05/Minstr) in 1 blocks (0.01%, 0/Minstr), avg size 3,048 bytes, avg lifetime 248,976,271 instrs (82.11% of program duration)
  │     Max:       3,048 bytes in 1 blocks, avg size 3,048 bytes
  │     At t-gmax: 3,048 bytes (0.37%) in 1 blocks (0.09%), avg size 3,048 bytes
  │     At t-end:  3,048 bytes (19.38%) in 1 blocks (0.18%), avg size 3,048 bytes
  │     Reads:      28 bytes (0%, 0.09/Minstr), 0.01/byte
  │     Writes:    2,560 bytes (0.01%, 8.44/Minstr), 0.84/byte
  │     Allocated at {
  │       ^1: 0x1034B03: uprv_malloc_73 (cmemory.cpp:58)
  │       #2: 0x10AF1BF: _uhash_allocate(UHashtable*, int, UErrorCode*) (uhash.cpp:228)
  │       #3: 0x10ACF0F: _uhash_init(UHashtable*, int (*)(UElement), signed char (*)(UElement, UElement), signed char (*)(UElement, UElement), int, UErrorCode*) (uhash.cpp:271)
  │       #4: 0x10ACCB7: _uhash_create(int (*)(UElement), signed char (*)(UElement, UElement), signed char (*)(UElement, UElement), int, UErrorCode*) (uhash.cpp:296)
  │       #5: 0x10ACC13: uhash_open_73 (uhash.cpp:547)
  │       #6: 0x104E9CB: icu_73::locale_set_default_internal(char const*, UErrorCode&) (locid.cpp:200)
  │       #7: 0x104F73B: icu_73::Locale::getDefault() (locid.cpp:2038)
  │       #8: 0x104EDF7: icu_73::Locale::init(char const*, signed char) (locid.cpp:1845)
  │       #9: 0x104F8DB: icu_73::Locale::Locale() (locid.cpp:272)
  │       #10: 0x893543: v8::internal::Isolate::DefaultLocale() (isolate.cc:6036)
  │       #11: 0x89DE13: v8::internal::LocalIsolate::LocalIsolate(v8::internal::Isolate*, v8::internal::ThreadKind) (local-isolate.cc:28)
  │     }
  │   }
  ├── PP 1.2.2/3 {
  │     Total:      224 bytes (0.01%, 0.74/Minstr) in 1 blocks (0.01%, 0/Minstr), avg size 224 bytes, avg lifetime 248,972,975 instrs (82.11% of program duration)
  │     Max:       224 bytes in 1 blocks, avg size 224 bytes
  │     At t-gmax: 224 bytes (0.03%) in 1 blocks (0.09%), avg size 224 bytes
  │     At t-end:  224 bytes (1.42%) in 1 blocks (0.18%), avg size 224 bytes
  │     Reads:      311 bytes (0%, 1.03/Minstr), 1.39/byte
  │     Writes:    103 bytes (0%, 0.34/Minstr), 0.46/byte
  │     Accesses: {
  │       [  0]  3 " " " " " " 4 2 " - - - - - - - - 3 - - - - 4 2 " - - -
  │       [ 32]  4 " " - - - - 18 " " " " " " 10 9 8 9 " 8 10 " " " " 9 - - - -
  │       [ 64]  - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
  │       [ 96]  - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
  │       [128]  - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
  │       [160]  - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
  │       [192]  - - - - - - - - - - - - - - 12 " " " " " " " 3 - - - - - - -
  │     }
  │     Allocated at {
  │       ^1: 0x1034B03: uprv_malloc_73 (cmemory.cpp:58)
  │       #2: 0x10E4C7F: icu_73::UMemory::operator new(unsigned long) (uobject.cpp:62)
  │       #3: 0x104EA6B: icu_73::locale_set_default_internal(char const*, UErrorCode&) (locid.cpp:210)
  │       #4: 0x104F73B: icu_73::Locale::getDefault() (locid.cpp:2038)
  │       #5: 0x104EDF7: icu_73::Locale::init(char const*, signed char) (locid.cpp:1845)
  │       #6: 0x104F8DB: icu_73::Locale::Locale() (locid.cpp:272)
  │       #7: 0x893543: v8::internal::Isolate::DefaultLocale() (isolate.cc:6036)
  │       #8: 0x89DE13: v8::internal::LocalIsolate::LocalIsolate(v8::internal::Isolate*, v8::internal::ThreadKind) (local-isolate.cc:28)
  │       #9: 0x88B8B7: v8::internal::Isolate::Init(v8::internal::SnapshotData*, v8::internal::SnapshotData*, v8::internal::SnapshotData*, bool) (isolate.cc:4460)
  │       #10: 0x88CA43: v8::internal::Isolate::InitWithSnapshot(v8::internal::SnapshotData*, v8::internal::SnapshotData*, v8::internal::SnapshotData*, bool) (isolate.cc:4178)
  │       #11: 0xE96EF7: v8::internal::Snapshot::Initialize(v8::internal::Isolate*) (snapshot.cc:199)
  │     }
  │   }
  └── PP 1.2.3/3 {
        At t-end:  158 bytes (1%)
        Allocated at {
          [3 insignificant]
        }
      }
  }
─ PP 1.3/4 {
    Total:      1,440 bytes (0.04%, 4.75/Minstr) in 5 blocks (0.05%, 0.02/Minstr), avg size 288 bytes, avg lifetime 301,765,151.6 instrs (99.52% of program duration)
    Max:       1,440 bytes in 5 blocks, avg size 288 bytes
```

```
       At t-gmax: 1,440 bytes (0.17%) in 5 blocks (0.45%), avg size 288 bytes
       At t-end:  1,440 bytes (9.16%) in 5 blocks (0.91%), avg size 288 bytes
       Reads:     40 bytes (0%, 0.13/Minstr), 0.03/byte
       Writes:   320 bytes (0%, 1.06/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: 0x69CD2F: v8::base::Thread::Start() (platform-posix.cc:1198)
         #7: 0x6A120B: v8::platform::DefaultWorkerThreadsTaskRunner::DefaultWorkerThreadsTaskRunner(unsigned int, double (*)(), v8::base::Thread::Priority) (default-worker-threads-task-runner.cc:18)
         #8: 0x69F913: v8::platform::DefaultPlatform::EnsureBackgroundTaskRunnerInitialized() (default-platform.cc:141)
         #9: 0x69F0EB: v8::platform::NewDefaultPlatform(int, v8::platform::IdleTaskSupport, v8::platform::InProcessStackDumping, std::Cr::unique_ptr<v8::TracingController, std::Cr::default_delete<v8::TracingControlle
         #10: 0x679EAB: v8__Platform__NewDefaultPlatform (binding.cc:2643)
         #11: 0x268853: new (platform.rs:133)
         #12: 0x268853: new_default_platform (platform.rs:80)
         #13: 0x268853: deno_core::runtime::jsruntime::v8_init::{{closure}} (jsruntime.rs:361)
         #14: 0x25405F: core::option::Option<T>::unwrap_or_else (option.rs:979)
         #15: 0x2687C3: deno_core::runtime::jsruntime::v8_init (jsruntime.rs:360)
       }
     }
  └─ PP 1.4/4 {
       At t-end:  168 bytes (1.07%)
       Allocated at {
         [21 insignificant]
       }
     }
   }

PP significance threshold: at-t-end >= 157.25 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:3.3ms + parse:2.3ms + build:12.1ms + display:2.9ms = total:20.6ms