Elapsed Time: 8.024s

CPU Time: 6.560s
Total Thread Count: 33
Paused Time: 0s

Top Hotspots

This section lists the most active functions in your application. Optimizing these hotspot functions typically results in improving overall application performance.

Function	Module	CPU Time	% of CPU Time
podio::ROOTReader::openFile	libpodioRootIO.so	2.540s	38.7%
cl::sycl::queue::queue	cc	0.589s	9.0%
Intel::OpenCL::Utils::OclDynamicLib::Load	libcpu_device.so.2022.13.3.0	0.322s	4.9%
memmove	libc-dynamic.so	0.320s	4.9%
_INTERNALca6fd304::tbb::detail::d0::machine_pause	libtbb.so.12	0.310s	4.7%
[Others]	N/A*	2.479s	37.8%

*N/A is applied to non-summable metrics.

Fig.1 Wall Time of 1k events with SYCL

Elapsed Time: 4.057s

CPU Time: 2.700s
Total Thread Count: 31
Paused Time: 0s

Top Hotspots

This section lists the most active functions in your application. Optimizing these hotspot functions typically results in improving overall application performance.

Function	Module	CPU Time	% of CPU Time
podio::ROOTReader::openFile	libpodioRootIO.so	2.531s	93.7%
syscall	libc.so.6	0.030s	1.1%
read	libc-dynamic.so	0.011s	0.4%
eicd::ProtoClusterCollection::push_back	libeicd.so	0.010s	0.4%
__GI___getdents64	libc.so.6	0.010s	0.4%
[Others]	N/A*	0.108s	4.0%

*N/A is applied to non-summable metrics.

Fig.2 Wall Time of 1k events without SYCL

Elapsed Time: 18.183s

CPU Time: 16.400s
Total Thread Count: 33
Paused Time: 0s

Top Hotspots

This section lists the most active functions in your application. Optimizing these hotspot functions typically results in improving overall application performance.

Function	Module	CPU Time	% of CPU Time
podio::ROOTReader::openFile	libpodioRootIO.so	3.183s	19.4%
_INTERNALca6fd304::tbb::detail::d0::machine_pause	libtbb.so.12	2.239s	13.7%
cl::sycl::queue::submit<Jug::Reco::CalorimeterIslandCluster::find_maxima(std::vector<std::pair<unsigned int, eicd::CalorimeterHit>, std::allocator<std::pair<unsigned int, eicd::CalorimeterHit>>> const&, bool) const::{lambda(cl::sycl::handler&)#1}>	cc	1.259s	7.7%
cl::sycl::event::wait_and_throw	libsycl.so.5	1.201s	7.3%
sched_yield	libc.so.6	0.920s	5.6%
[Others]	N/A*	7.598s	46.3%

Fig.3 Wall Time of 10k events with SYCL

Elapsed Time: 4.457s

CPU Time: 3.130s
Total Thread Count: 31
Paused Time: 0s

Top Hotspots

This section lists the most active functions in your application. Optimizing these hotspot functions typically results in improving overall application performance.

Function	Module	CPU Time	% of CPU Time
podio::ROOTReader::openFile	libpodioRootIO.so	2.580s	82.4%
eicd::CalorimeterHitCollection::operator[]	libeicd.so	0.090s	2.9%
eicd::ProtoClusterCollection::~ProtoClusterCollection	libeicd.so	0.070s	2.2%
podio::EventStore::doGet	libpodio.so	0.070s	2.2%
eicd::ProtoClusterCollection::ProtoClusterCollection	libeicd.so	0.060s	1.9%
[Others]	N/A*	0.260s	8.3%

**N/A is applied to non-summable metrics.*

Fig.4 Wall Time of 10k events without SYCL

Elapsed Time: 52.771s

- **CPU Time:** 61.380s
  - Effective Time: 46.811s
  - **Spin Time:** 8.079s
  - **Overhead Time:** 6.490s
    - Creation: 0s
    - Scheduling: 6.490s
    - Reduction: 0s
    - Atomics: 0s
    - Other: 0s
  - Total Thread Count: 33
  - Paused Time: 0s

Top Hotspots

This section lists the most active functions in your application. Optimizing these hotspot functions typically results in improving overall application performance.

Function	Module	CPU Time	% of CPU Time
_INTERNALca6fd304::tbb::detail::d0::machine_pause	libtbb.so.12	12.235s	19.9%
cl::sycl::queue::submit<Jug::Reco::CalorimeterIslandCluster::find_maxima(std::vector<std::pair<unsigned int, eicd::CalorimeterHit>, std::allocator<std::pair<unsigned int, eicd::CalorimeterHit>>> const&, bool) const::{lambda(cl::sycl::handler&)#1}>	cc	8.948s	14.6%
cl::sycl::event::wait_and_throw	libsycl.so.5	6.417s	10.5%
sched_yield	libc.so.6	5.204s	8.5%
cl::sycl::detail::buffer_impl::~buffer_impl	cc	3.755s	6.1%
[Others]	N/A*	24.820s	40.4%

*N/A is applied to non-summable metrics.

Fig.5 Wall Time of 100k events with SYCL

Elapsed Time: 7.104s

CPU Time: 5.690s

Total Thread Count: 31

Paused Time: 0s

Top Hotspots

This section lists the most active functions in your application. Optimizing these hotspot functions typically results in improving overall application performance.

Function	Module	CPU Time	% of CPU Time
podio::ROOTReader::openFile	libpodioRootIO.so	2.520s	44.3%
eicd::ProtoClusterCollection::ProtoClusterCollection	libeicd.so	0.580s	10.2%
eicd::CalorimeterHitCollection::operator[]	libeicd.so	0.480s	8.4%
eicd::ProtoClusterCollection::~ProtoClusterCollection	libeicd.so	0.480s	8.4%
podio::EventStore::doGet	libpodio.so	0.400s	7.0%
[Others]	N/A*	1.230s	21.6%

**N/A is applied to non-summable metrics.*

Fig.6 Wall Time of 100k events without SYCL