# Cross-run-ID Comparison Report

(differences in bold)

MHZ_PER_CPU:
Md3vp: 3394
EcAaj: 3394

HELICS_VERSION:
Md3vp: 2.3.1
EcAaj: 2.3.1

GENERATOR:
**Md3vp: Visual Studio 15 2017**
**EcAaj: Ninja**

SYSTEM:
**Md3vp: Windows**
**EcAaj: Linux**

SYSTEM_VERSION:
**Md3vp: 10.0.18362**
**EcAaj: 4.15.0-65-generic:**

PLATFORM:
Md3vp:
EcAaj:

CXX_COMPILER:
**Md3vp: MSVC**
**EcAaj: GNU**

CXX_COMPILER_VERSION:
**Md3vp: 19.16.27026.1**
**EcAaj: 7.4.0**

BUILD_FLAGS_STRING:
**Md3vp:   /DWIN32 /D_WINDOWS /W3 /GR /EHsc /MD /O2 /Ob2 /DNDEBUG /machine:x64**
**/EHsc;/std:c++14**
**EcAaj:   -O3 -DNDEBUG  $<$<COMPILE_LANGUAGE:CXX>:-std=c++14>**

HOST_NAME:
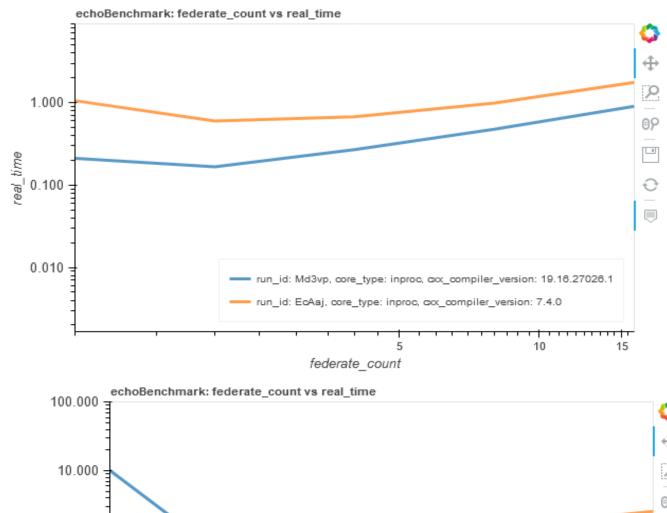**Md3vp: SIRIUS**
**EcAaj: UbuntuVirt**

HOST_PROCESSOR:
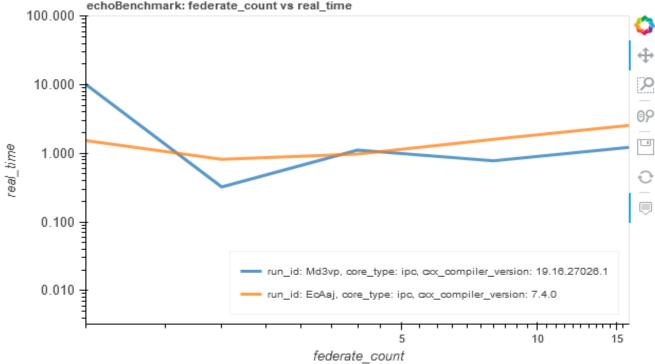**Md3vp: AMD64**
**EcAaj: x86_64**

NUM_CPUS:
**Md3vp: 32**
**EcAaj: 8**

DATE:
Md3vp: 11/28/19 08:01:41
EcAaj: 2019-12-01 05:43:03

LIBRARY_BUILD_TYPE:
Md3vp: release
EcAaj: release

**echoBenchmark: federate_count vs real_time**



run_id: Md3vp, core_type: inproc, cxx_compiler_version: 19.16.27026.1
run_id: EcAaj, core_type: inproc, cxx_compiler_version: 7.4.0

**echoBenchmark: federate_count vs real_time**



run_id: Md3vp, core_type: ipc, cxx_compiler_version: 19.16.27026.1
run_id: EcAaj, core_type: ipc, cxx_compiler_version: 7.4.0

**echoBenchmark: federate_count vs real_time**

- run_id: Md3vp, core_type: singleCore, cxx_compiler_version: 19.16.27026.1
- run_id: EcAaj, core_type: singleCore, cxx_compiler_version: 7.4.0

**echoBenchmark: federate_count vs real_time**

- run_id: Md3vp, core_type: tcp, cxx_compiler_version: 19.16.27026.1
- run_id: EcAaj, core_type: tcp, cxx_compiler_version: 7.4.0

**echoBenchmark: federate_count vs real_time**



Legend:
- run_id: Md3vp, core_type: tcpss, cxx_compiler_version: 19.16.27026.1
- run_id: EcAaj, core_type: tcpss, cxx_compiler_version: 7.4.0

x-axis: federate_count
y-axis: real_time

**echoBenchmark: federate_count vs real_time**



Legend:
- run_id: Md3vp, core_type: udp, cxx_compiler_version: 19.16.27026.1
- run_id: EcAaj, core_type: udp, cxx_compiler_version: 7.4.0

x-axis: federate_count
y-axis: real_time

**echoBenchmark: federate_count vs real_time**

run_id: Md3vp, core_type: zmq, cxx_compiler_version: 19.16.27026.1
run_id: EcAaj, core_type: zmq, cxx_compiler_version: 7.4.0

**echoBenchmark: federate_count vs real_time**

run_id: Md3vp, core_type: zmqss, cxx_compiler_version: 19.16.27026.1
run_id: EcAaj, core_type: zmqss, cxx_compiler_version: 7.4.0

**echoMessageBenchmark: federate_count vs real_time**



run_id: Md3vp, core_type: inproc, cxx_compiler_version: 19.16.27026.1
run_id: EcAaj, core_type: inproc, cxx_compiler_version: 7.4.0

federate_count

**echoMessageBenchmark: federate_count vs real_time**



run_id: Md3vp, core_type: ipc, cxx_compiler_version: 19.16.27026.1
run_id: EcAaj, core_type: ipc, cxx_compiler_version: 7.4.0

federate_count

**echoMessageBenchmark: federate_count vs real_time**



run_id: Md3vp, core_type: singleCore, cxx_compiler_version: 19.16.27026.1
run_id: EcAaj, core_type: singleCore, cxx_compiler_version: 7.4.0

**echoMessageBenchmark: federate_count vs real_time**



run_id: Md3vp, core_type: tcp, cxx_compiler_version: 19.16.27026.1
run_id: EcAaj, core_type: tcp, cxx_compiler_version: 7.4.0

## echoMessageBenchmark: federate_count vs real_time



Legend:
- run_id: Md3vp, core_type: tcpss, cxx_compiler_version: 19.16.27026.1
- run_id: EcAaj, core_type: tcpss, cxx_compiler_version: 7.4.0

X-axis: federate_count
Y-axis: real_time

## echoMessageBenchmark: federate_count vs real_time



Legend:
- run_id: Md3vp, core_type: udp, cxx_compiler_version: 19.16.27026.1
- run_id: EcAaj, core_type: udp, cxx_compiler_version: 7.4.0

X-axis: federate_count
Y-axis: real_time

**echoMessageBenchmark: federate_count vs real_time**



- run_id: Md3vp, core_type: zmq, cxx_compiler_version: 19.16.27026.1
- run_id: EcAaj, core_type: zmq, cxx_compiler_version: 7.4.0

real_time

federate_count

**echoMessageBenchmark: federate_count vs real_time**



- run_id: Md3vp, core_type: zmqss, cxx_compiler_version: 19.16.27026.1
- run_id: EcAaj, core_type: zmqss, cxx_compiler_version: 7.4.0

real_time

federate_count

## messageSend, msg_ct=1: message_size vs real_time



run_id: Md3vp, core_type: inproc, cxx_compiler_version: 19.16.27026.1
run_id: EcAaj, core_type: inproc, cxx_compiler_version: 7.4.0

## messageSend, msg_ct=1: message_size vs real_time



run_id: Md3vp, core_type: ipc, cxx_compiler_version: 19.16.27026.1
run_id: EcAaj, core_type: ipc, cxx_compiler_version: 7.4.0

messageSend, msg_ct=1: message_size vs real_time

run_id: Md3vp, core_type: singleCore, cxx_compiler_version: 19.16.27026.1
run_id: EcAaj, core_type: singleCore, cxx_compiler_version: 7.4.0



messageSend, msg_ct=1: message_size vs real_time

run_id: Md3vp, core_type: tcp, cxx_compiler_version: 19.16.27026.1
run_id: EcAaj, core_type: tcp, cxx_compiler_version: 7.4.0

**messageSend, msg_ct=1: message_size vs real_time**



run_id: Md3vp, core_type: tcpss, cxx_compiler_version: 19.16.27026.1
run_id: EcAaj, core_type: tcpss, cxx_compiler_version: 7.4.0

**messageSend, msg_ct=1: message_size vs real_time**



run_id: Md3vp, core_type: udp, cxx_compiler_version: 19.16.27026.1
run_id: EcAaj, core_type: udp, cxx_compiler_version: 7.4.0

**messageSend, msg_ct=1: message_size vs real_time**

- run_id: Md3vp, core_type: zmq, cxx_compiler_version: 19.16.27026.1
- run_id: EcAaj, core_type: zmq, cxx_compiler_version: 7.4.0



**messageSend, msg_ct=1: message_size vs real_time**

- run_id: Md3vp, core_type: zmqss, cxx_compiler_version: 19.16.27026.1
- run_id: EcAaj, core_type: zmqss, cxx_compiler_version: 7.4.0

messageSend, msg_sz=1: message_count vs real_time

run_id: Md3vp, core_type: inproc, cxx_compiler_version: 19.16.27026.1
run_id: EcAaj, core_type: inproc, cxx_compiler_version: 7.4.0



messageSend, msg_sz=1: message_count vs real_time

run_id: Md3vp, core_type: ipc, cxx_compiler_version: 19.16.27026.1
run_id: EcAaj, core_type: ipc, cxx_compiler_version: 7.4.0

**messageSend, msg_sz=1: message_count vs real_time**

run_id: Md3vp, core_type: singleCore, cxx_compiler_version: 19.16.27026.1
run_id: EcAaj, core_type: singleCore, cxx_compiler_version: 7.4.0



**messageSend, msg_sz=1: message_count vs real_time**

run_id: Md3vp, core_type: tcp, cxx_compiler_version: 19.16.27026.1
run_id: EcAaj, core_type: tcp, cxx_compiler_version: 7.4.0

**messageSend, msg_sz=1: message_count vs real_time**



Legend:
- run_id: Md3vp, core_type: tcpss, cxx_compiler_version: 19.16.27026.1
- run_id: EcAaj, core_type: tcpss, cxx_compiler_version: 7.4.0

**messageSend, msg_sz=1: message_count vs real_time**



Legend:
- run_id: Md3vp, core_type: udp, cxx_compiler_version: 19.16.27026.1
- run_id: EcAaj, core_type: udp, cxx_compiler_version: 7.4.0

## messageSend, msg_sz=1: message_count vs real_time



run_id: Md3vp, core_type: zmq, cxx_compiler_version: 19.16.27026.1
run_id: EcAaj, core_type: zmq, cxx_compiler_version: 7.4.0

## messageSend, msg_sz=1: message_count vs real_time



run_id: Md3vp, core_type: zmqss, cxx_compiler_version: 19.16.27026.1
run_id: EcAaj, core_type: zmqss, cxx_compiler_version: 7.4.0

## messageSend, singleCore: message_size vs real_time



run_id: Md3vp, core_type: singleCore, cxx_compiler_version: 19.16.27026.1
run_id: EcAaj, core_type: singleCore, cxx_compiler_version: 7.4.0

## pholdBenchmark: federate_count vs real_time



run_id: Md3vp, core_type: inproc, cxx_compiler_version: 19.16.27026.1
run_id: EcAaj, core_type: inproc, cxx_compiler_version: 7.4.0

**pholdBenchmark: federate_count vs real_time**

run_id: Md3vp, core_type: ipc, cxx_compiler_version: 19.16.27026.1

run_id: EcAaj, core_type: ipc, cxx_compiler_version: 7.4.0

*real_time*

*federate_count*

**pholdBenchmark: federate_count vs real_time**

run_id: Md3vp, core_type: singleCore, cxx_compiler_version: 19.16.27026.1

run_id: EcAaj, core_type: singleCore, cxx_compiler_version: 7.4.0

*real_time*

*federate_count*

pholdBenchmark: federate_count vs real_time



pholdBenchmark: federate_count vs real_time

pholdBenchmark: federate_count vs real_time

run_id: Md3vp, core_type: udp, cxx_compiler_version: 19.16.27026.1
run_id: EcAaj, core_type: udp, cxx_compiler_version: 7.4.0

pholdBenchmark: federate_count vs real_time

run_id: Md3vp, core_type: zmq, cxx_compiler_version: 19.16.27026.1
run_id: EcAaj, core_type: zmq, cxx_compiler_version: 7.4.0

## pholdBenchmark: federate_count vs real_time



Legend:
- run_id: Md3vp, core_type: zmqss, cxx_compiler_version: 19.16.27026.1
- run_id: EcAaj, core_type: zmqss, cxx_compiler_version: 7.4.0

## ringBenchmark: federate_count vs real_time



Legend:
- run_id: Md3vp, core_type: inproc, cxx_compiler_version: 19.16.27026.1
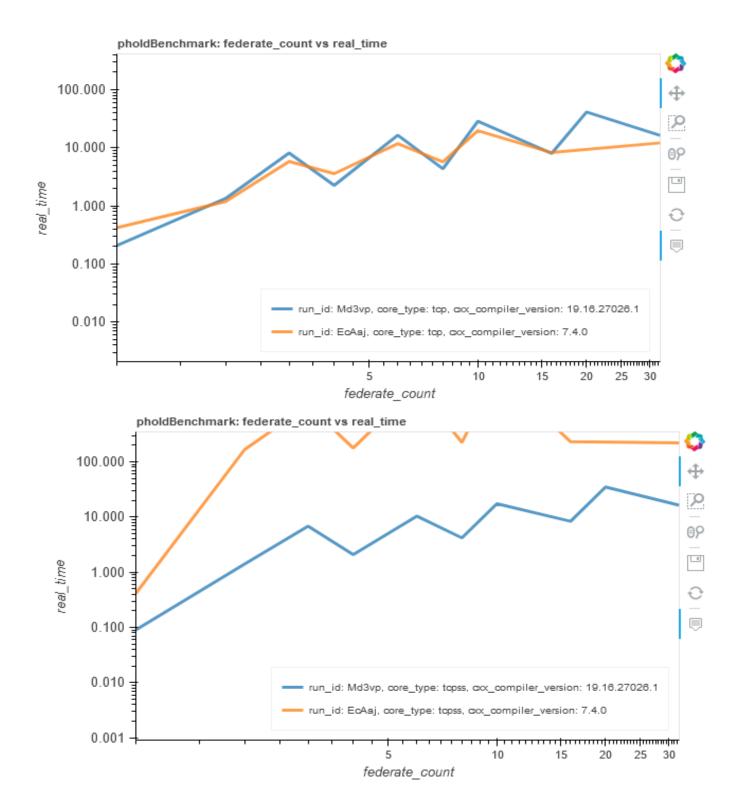- run_id: EcAaj, core_type: inproc, cxx_compiler_version: 7.4.0

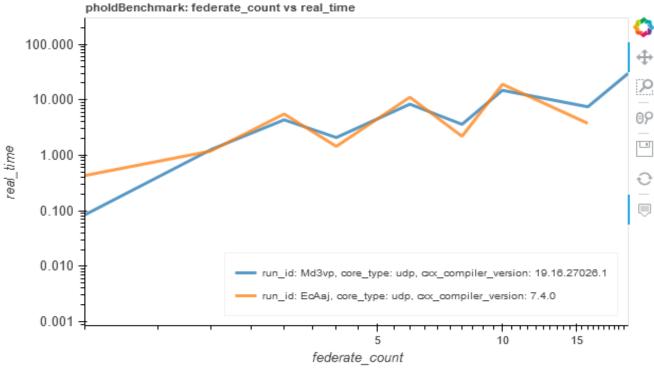**ringBenchmark: federate_count vs real_time**

run_id: Md3vp, core_type: ipc, cxx_compiler_version: 19.16.27026.1

run_id: EcAaj, core_type: ipc, cxx_compiler_version: 7.4.0

**ringBenchmark: federate_count vs real_time**

run_id: Md3vp, core_type: tcp, cxx_compiler_version: 19.16.27026.1

run_id: EcAaj, core_type: tcp, cxx_compiler_version: 7.4.0

**ringBenchmark: federate_count vs real_time**

real_time (y-axis, log scale): 0.100, 1.000, 10.000, 100.000
federate_count (x-axis): 5, 10, 15

run_id: Md3vp, core_type: tcpss, cxx_compiler_version: 19.16.27026.1
run_id: EcAaj, core_type: tcpss, cxx_compiler_version: 7.4.0

**ringBenchmark: federate_count vs real_time**

real_time (y-axis, log scale): 0.100, 1.000, 10.000, 100.000
federate_count (x-axis): 5, 10, 15

run_id: Md3vp, core_type: udp, cxx_compiler_version: 19.16.27026.1
run_id: EcAaj, core_type: udp, cxx_compiler_version: 7.4.0

**ringBenchmark: federate_count vs real_time**

run_id: Md3vp, core_type: zmq, cxx_compiler_version: 19.16.27026.1
run_id: EcAaj, core_type: zmq, cxx_compiler_version: 7.4.0

**ringBenchmark: federate_count vs real_time**

run_id: Md3vp, core_type: zmqss, cxx_compiler_version: 19.16.27026.1
run_id: EcAaj, core_type: zmqss, cxx_compiler_version: 7.4.0