Cross-run-ID Comparison Report

(differences in bold)

MHZ_PER_CPU:
haMSb: 3394
m2pv2: 3394

HELICS_VERSION:
haMSb: 2.5.0 (2020
m2pv2: 2.5.0 (2020

GENERATOR:
haMSb: Visual Studio 15 2017
m2pv2: Visual Studio 15 2017

SYSTEM:
haMSb: Windows
m2pv2: Windows

SYSTEM_VERSION:
haMSb: 10.0.18363
m2pv2: 10.0.18363

PLATFORM:
haMSb: x64
m2pv2: x64

CXX_COMPILER:
haMSb: MSVC
m2pv2: MSVC

CXX_COMPILER_VERSION:
haMSb: 19.16.27026.1
m2pv2: 19.16.27039.0

BUILD_FLAGS_STRING:
haMSb: /DWIN32 /D_WINDOWS /GR /EHsc /O2 /Ob2 /DNDEBUG /machine:x64 /EHsc;/std:c++14
m2pv2: /DWIN32 /D_WINDOWS /GR /EHsc /O2 /Ob2 /DNDEBUG /machine:x64 /EHsc;/std:c++14
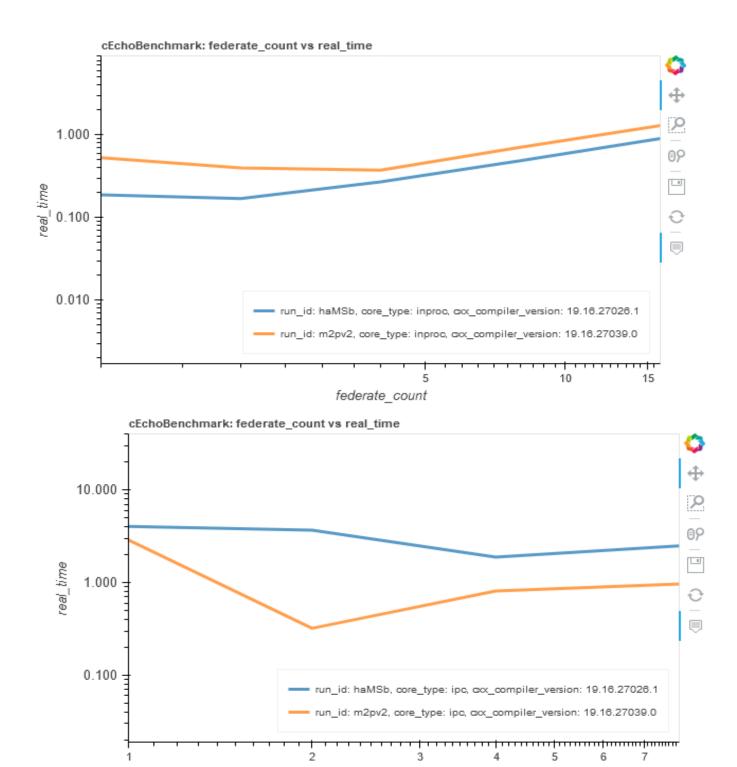
HOST_NAME:
haMSb: SIRIUS
m2pv2: SIRIUS

HOST_PROCESSOR:
haMSb: AMD64
m2pv2: AMD64

NUM_CPUS:
haMSb: 32
m2pv2: 32

DATE:
haMSb: 04/28/20 21:21:37
m2pv2: 04/30/20 21:12:48

cEchoBenchmark: federate_count vs real_time

Plot 1 (log scale, real_time vs federate_count):
- run_id: haMSb, core_type: inproc, cxx_compiler_version: 19.16.27026.1
- run_id: m2pv2, core_type: inproc, cxx_compiler_version: 19.16.27039.0

cEchoBenchmark: federate_count vs real_time

Plot 2 (log scale, real_time vs federate_count):
- run_id: haMSb, core_type: ipc, cxx_compiler_version: 19.16.27026.1
- run_id: m2pv2, core_type: ipc, cxx_compiler_version: 19.16.27039.0

cEchoBenchmark: federate_count vs real_time

legend:
- run_id: haMSb, core_type: singleCore, cxx_compiler_version: 19.16.27026.1
- run_id: m2pv2, core_type: singleCore, cxx_compiler_version: 19.16.27039.0

real_time vs *federate_count*

cEchoBenchmark: federate_count vs real_time

legend:
- run_id: haMSb, core_type: tcp, cxx_compiler_version: 19.16.27026.1
- run_id: m2pv2, core_type: tcp, cxx_compiler_version: 19.16.27039.0

real_time vs *federate_count*

cEchoBenchmark: federate_count vs real_time

run_id: haMSb, core_type: tcpss, cxx_compiler_version: 19.16.27026.1
run_id: m2pv2, core_type: tcpss, cxx_compiler_version: 19.16.27039.0

cEchoBenchmark: federate_count vs real_time

run_id: haMSb, core_type: udp, cxx_compiler_version: 19.16.27026.1
run_id: m2pv2, core_type: udp, cxx_compiler_version: 19.16.27039.0

cEchoBenchmark: federate_count vs real_time

| | run_id: haMSb, core_type: zmq, cxx_compiler_version: 19.16.27026.1 |
| | run_id: m2pv2, core_type: zmq, cxx_compiler_version: 19.16.27039.0 |

cEchoBenchmark: federate_count vs real_time

| | run_id: haMSb, core_type: zmqss, cxx_compiler_version: 19.16.27026.1 |
| | run_id: m2pv2, core_type: zmqss, cxx_compiler_version: 19.16.27039.0 |

echoBenchmark: federate_count vs real_time

— run_id: haMSb, core_type: inproc, cxx_compiler_version: 19.16.27026.1
— run_id: m2pv2, core_type: inproc, cxx_compiler_version: 19.16.27039.0

echoBenchmark: federate_count vs real_time

— run_id: haMSb, core_type: ipc, cxx_compiler_version: 19.16.27026.1
— run_id: m2pv2, core_type: ipc, cxx_compiler_version: 19.16.27039.0

echoBenchmark: federate_count vs real_time

run_id: haMSb, core_type: singleCore, cxx_compiler_version: 19.16.27026.1
run_id: m2pv2, core_type: singleCore, cxx_compiler_version: 19.16.27039.0

echoBenchmark: federate_count vs real_time

run_id: haMSb, core_type: tcp, cxx_compiler_version: 19.16.27026.1
run_id: m2pv2, core_type: tcp, cxx_compiler_version: 19.16.27039.0

echoBenchmark: federate_count vs real_time

run_id: haMSb, core_type: tcpss, cxx_compiler_version: 19.16.27026.1
run_id: m2pv2, core_type: tcpss, cxx_compiler_version: 19.16.27039.0

federate_count

echoBenchmark: federate_count vs real_time

run_id: haMSb, core_type: udp, cxx_compiler_version: 19.16.27026.1
run_id: m2pv2, core_type: udp, cxx_compiler_version: 19.16.27039.0

federate_count

echoBenchmark: federate_count vs real_time

— run_id: haMSb, core_type: zmq, cxx_compiler_version: 19.16.27026.1
— run_id: m2pv2, core_type: zmq, cxx_compiler_version: 19.16.27039.0

echoBenchmark: federate_count vs real_time

— run_id: haMSb, core_type: zmqss, cxx_compiler_version: 19.16.27026.1
— run_id: m2pv2, core_type: zmqss, cxx_compiler_version: 19.16.27039.0

echoMessageBenchmark: federate_count vs real_time

Legend:
- run_id: haMSb, core_type: inproc, cxx_compiler_version: 19.16.27026.1
- run_id: m2pv2, core_type: inproc, cxx_compiler_version: 19.16.27039.0

echoMessageBenchmark: federate_count vs real_time

Legend:
- run_id: haMSb, core_type: ipc, cxx_compiler_version: 19.16.27026.1
- run_id: m2pv2, core_type: ipc, cxx_compiler_version: 19.16.27039.0

echoMessageBenchmark: federate_count vs real_time

— run_id: haMSb, core_type: singleCore, cxx_compiler_version: 19.16.27026.1
— run_id: m2pv2, core_type: singleCore, cxx_compiler_version: 19.16.27039.0

echoMessageBenchmark: federate_count vs real_time

— run_id: haMSb, core_type: tcp, cxx_compiler_version: 19.16.27026.1
— run_id: m2pv2, core_type: tcp, cxx_compiler_version: 19.16.27039.0

echoMessageBenchmark: federate_count vs real_time

run_id: haMSb, core_type: tcpss, cxx_compiler_version: 19.16.27026.1
run_id: m2pv2, core_type: tcpss, cxx_compiler_version: 19.16.27039.0

echoMessageBenchmark: federate_count vs real_time

run_id: haMSb, core_type: udp, cxx_compiler_version: 19.16.27026.1
run_id: m2pv2, core_type: udp, cxx_compiler_version: 19.16.27039.0

echoMessageBenchmark: federate_count vs real_time

run_id: haMSb, core_type: zmq, cxx_compiler_version: 19.16.27026.1
run_id: m2pv2, core_type: zmq, cxx_compiler_version: 19.16.27039.0

echoMessageBenchmark: federate_count vs real_time

run_id: haMSb, core_type: zmqss, cxx_compiler_version: 19.16.27026.1
run_id: m2pv2, core_type: zmqss, cxx_compiler_version: 19.16.27039.0

filter, fltr_loc=dest: federate_count vs real_time

Legend:
- run_id: haMSb, core_type: inproc, cxx_compiler_version: 19.16.27026.1
- run_id: m2pv2, core_type: inproc, cxx_compiler_version: 19.16.27039.0

Axes: real_time (y) vs federate_count (x)

filter, fltr_loc=dest: federate_count vs real_time

Legend:
- run_id: haMSb, core_type: ipc, cxx_compiler_version: 19.16.27026.1
- run_id: m2pv2, core_type: ipc, cxx_compiler_version: 19.16.27039.0

Axes: real_time (y) vs federate_count (x)

filter, fltr_loc=dest: federate_count vs real_time

Legend:
- run_id: haMSb, core_type: singleCore, cxx_compiler_version: 19.16.27026.1
- run_id: m2pv2, core_type: singleCore, cxx_compiler_version: 19.16.27039.0

filter, fltr_loc=dest: federate_count vs real_time

Legend:
- run_id: haMSb, core_type: tcp, cxx_compiler_version: 19.16.27026.1
- run_id: m2pv2, core_type: tcp, cxx_compiler_version: 19.16.27039.0

filter, fltr_loc=dest: federate_count vs real_time

run_id: haMSb, core_type: tcpss, cxx_compiler_version: 19.16.27026.1
run_id: m2pv2, core_type: tcpss, cxx_compiler_version: 19.16.27039.0

federate_count

filter, fltr_loc=dest: federate_count vs real_time

run_id: haMSb, core_type: udp, cxx_compiler_version: 19.16.27026.1
run_id: m2pv2, core_type: udp, cxx_compiler_version: 19.16.27039.0

federate_count

filter, fltr_loc=dest: federate_count vs real_time

Legend:
- run_id: haMSb, core_type: zmq, cxx_compiler_version: 19.16.27026.1
- run_id: m2pv2, core_type: zmq, cxx_compiler_version: 19.16.27039.0

filter, fltr_loc=dest: federate_count vs real_time

Legend:
- run_id: haMSb, core_type: zmqss, cxx_compiler_version: 19.16.27026.1
- run_id: m2pv2, core_type: zmqss, cxx_compiler_version: 19.16.27039.0

filter, fltr_loc=source: federate_count vs real_time

run_id: haMSb, core_type: inproc, cxx_compiler_version: 19.16.27026.1
run_id: m2pv2, core_type: inproc, cxx_compiler_version: 19.16.27039.0

filter, fltr_loc=source: federate_count vs real_time

run_id: haMSb, core_type: ipc, cxx_compiler_version: 19.16.27026.1
run_id: m2pv2, core_type: ipc, cxx_compiler_version: 19.16.27039.0

filter, fltr_loc=source: federate_count vs real_time

run_id: haMSb, core_type: singleCore, cxx_compiler_version: 19.16.27026.1
run_id: m2pv2, core_type: singleCore, cxx_compiler_version: 19.16.27039.0

filter, fltr_loc=source: federate_count vs real_time

run_id: haMSb, core_type: tcp, cxx_compiler_version: 19.16.27026.1
run_id: m2pv2, core_type: tcp, cxx_compiler_version: 19.16.27039.0

filter, fltr_loc=source: federate_count vs real_time

- run_id: haMSb, core_type: tcpss, cxx_compiler_version: 19.16.27026.1
- run_id: m2pv2, core_type: tcpss, cxx_compiler_version: 19.16.27039.0

filter, fltr_loc=source: federate_count vs real_time

- run_id: haMSb, core_type: udp, cxx_compiler_version: 19.16.27026.1
- run_id: m2pv2, core_type: udp, cxx_compiler_version: 19.16.27039.0

filter, fltr_loc=source: federate_count vs real_time

run_id: haMSb, core_type: zmq, cxx_compiler_version: 19.16.27026.1
run_id: m2pv2, core_type: zmq, cxx_compiler_version: 19.16.27039.0

filter, fltr_loc=source: federate_count vs real_time

run_id: haMSb, core_type: zmqss, cxx_compiler_version: 19.16.27026.1
run_id: m2pv2, core_type: zmqss, cxx_compiler_version: 19.16.27039.0

filter, singleCore: federate_count vs real_time

Legend:
- run_id: haMSb, core_type: singleCore, cxx_compiler_version: 19.16.27026.1
- run_id: m2pv2, core_type: singleCore, cxx_compiler_version: 19.16.27039.0

messageLookup, fed_ct=2: interface_count vs real_time

Legend:
- run_id: haMSb, core_type: inproc, cxx_compiler_version: 19.16.27026.1
- run_id: m2pv2, core_type: inproc, cxx_compiler_version: 19.16.27039.0

messageLookup, fed_ct=64: interface_count vs real_time

run_id: haMSb, core_type: inproc, cxx_compiler_version: 19.16.27026.1
run_id: m2pv2, core_type: inproc, cxx_compiler_version: 19.16.27039.0

messageLookup, fed_ct=8: interface_count vs real_time

run_id: haMSb, core_type: inproc, cxx_compiler_version: 19.16.27026.1
run_id: m2pv2, core_type: inproc, cxx_compiler_version: 19.16.27039.0

messageSend, msg_ct=1: message_size vs real_time

run_id: haMSb, core_type: inproc, cxx_compiler_version: 19.16.27026.1
run_id: m2pv2, core_type: inproc, cxx_compiler_version: 19.16.27039.0
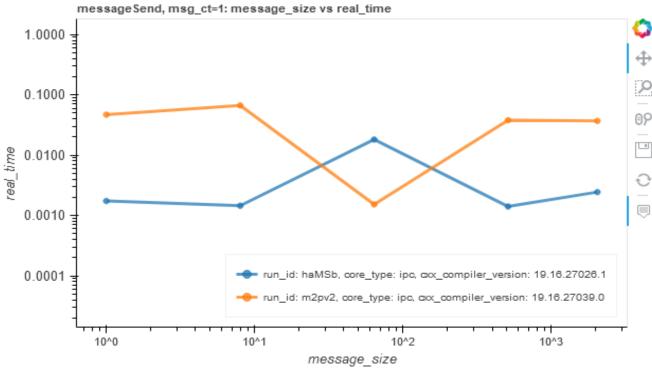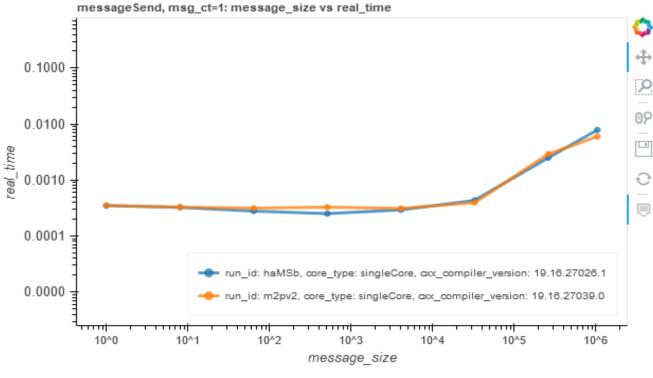
messageSend, msg_ct=1: message_size vs real_time

run_id: haMSb, core_type: ipc, cxx_compiler_version: 19.16.27026.1
run_id: m2pv2, core_type: ipc, cxx_compiler_version: 19.16.27039.0

messageSend, msg_ct=1: message_size vs real_time

(Top plot)

y-axis: real_time — 0.1000, 0.0100, 0.0010, 0.0001, 0.0000

x-axis: message_size — 10^0, 10^1, 10^2, 10^3, 10^4, 10^5, 10^6

Legend:
- run_id: haMSb, core_type: singleCore, cxx_compiler_version: 19.16.27026.1
- run_id: m2pv2, core_type: singleCore, cxx_compiler_version: 19.16.27039.0

messageSend, msg_ct=1: message_size vs real_time

(Bottom plot)

y-axis: real_time — 1.0000, 0.1000, 0.0100, 0.0010, 0.0001
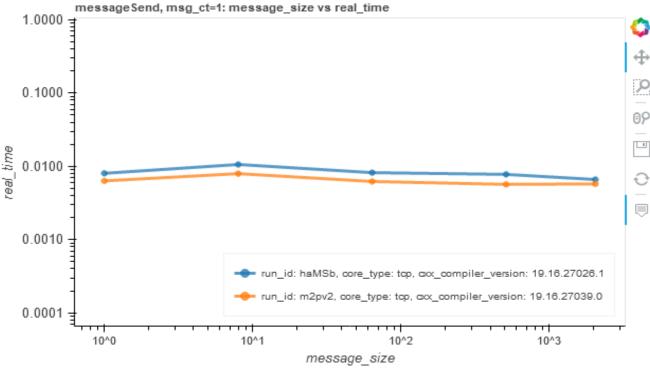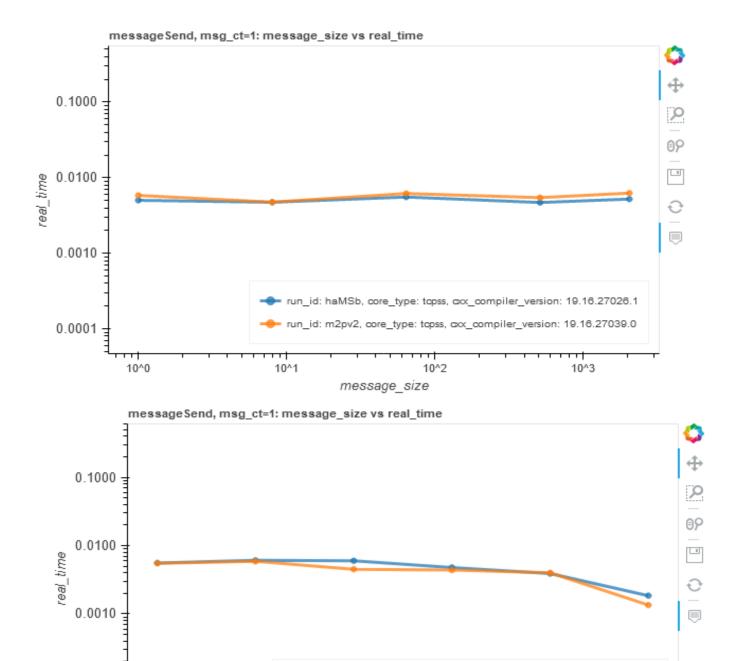
x-axis: message_size — 10^0, 10^1, 10^2, 10^3

Legend:
- run_id: haMSb, core_type: tcp, cxx_compiler_version: 19.16.27026.1
- run_id: m2pv2, core_type: tcp, cxx_compiler_version: 19.16.27039.0

messageSend, msg_ct=1: message_size vs real_time

messageSend, msg_ct=1: message_size vs real_time

messageSend, msg_ct=1: message_size vs real_time

run_id: haMSb, core_type: zmq, cxx_compiler_version: 19.16.27026.1
run_id: m2pv2, core_type: zmq, cxx_compiler_version: 19.16.27039.0

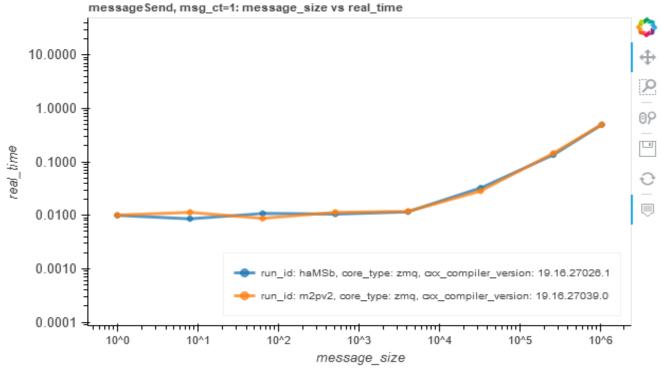**messageSend, msg_ct=1: message_size vs real_time**

run_id: haMSb, core_type: zmqss, cxx_compiler_version: 19.16.27026.1
run_id: m2pv2, core_type: zmqss, cxx_compiler_version: 19.16.27039.0

messageSend, msg_sz=1: message_count vs real_time

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messageSend, msg_sz=1: message_count vs real_time

messageSend, msg_sz=1: message_count vs real_time

real_time vs message_count (log-log plot)

Legend:
- run_id: haMSb, core_type: tcpss, cxx_compiler_version: 19.16.27026.1
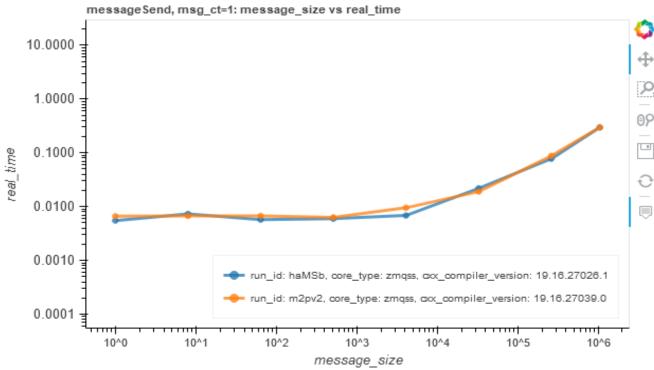- run_id: m2pv2, core_type: tcpss, cxx_compiler_version: 19.16.27039.0

messageSend, msg_sz=1: message_count vs real_time

real_time vs message_count (log-log plot)

Legend:
- run_id: haMSb, core_type: udp, cxx_compiler_version: 19.16.27026.1
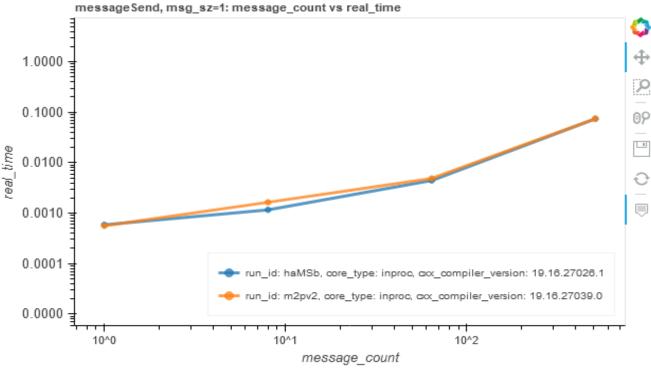- run_id: m2pv2, core_type: udp, cxx_compiler_version: 19.16.27039.0

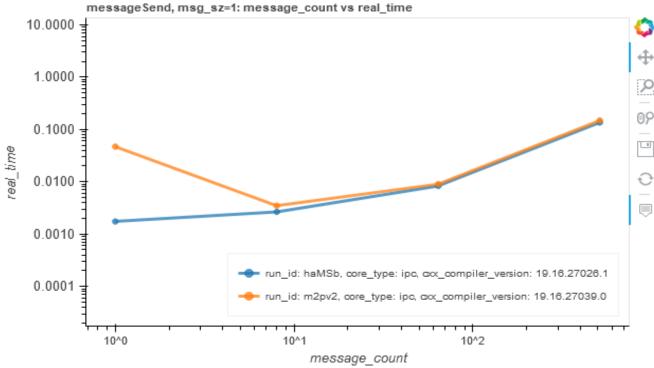**messageSend, msg_sz=1: message_count vs real_time**

run_id: haMSb, core_type: zmq, cxx_compiler_version: 19.16.27026.1
run_id: m2pv2, core_type: zmq, cxx_compiler_version: 19.16.27039.0

messageSend, msg_sz=1: message_count vs real_time

run_id: haMSb, core_type: zmqss, cxx_compiler_version: 19.16.27026.1
run_id: m2pv2, core_type: zmqss, cxx_compiler_version: 19.16.27039.0

messageSend, singleCore: message_size vs real_time

Legend:
- run_id: haMSb, core_type: singleCore, cxx_compiler_version: 19.16.27026.1
- run_id: m2pv2, core_type: singleCore, cxx_compiler_version: 19.16.27039.0

pholdBenchmark: federate_count vs real_time

Legend:
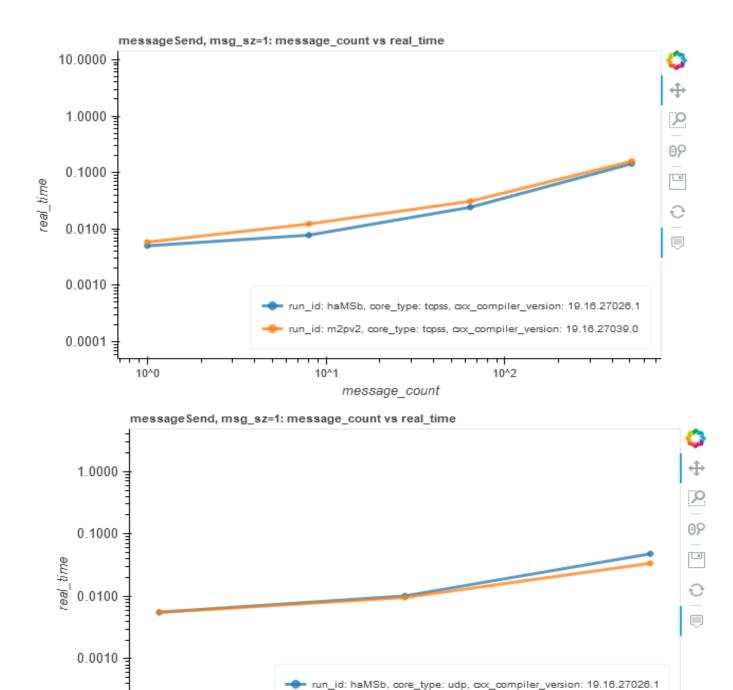- run_id: haMSb, core_type: inproc, cxx_compiler_version: 19.16.27026.1
- run_id: m2pv2, core_type: inproc, cxx_compiler_version: 19.16.27039.0

pholdBenchmark: federate_count vs real_time

real_time vs federate_count (log-log plot, ipc core_type)

Legend:
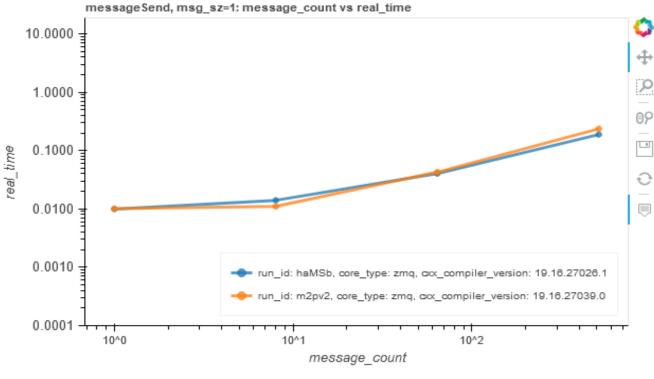- run_id: haMSb, core_type: ipc, cxx_compiler_version: 19.16.27026.1
- run_id: m2pv2, core_type: ipc, cxx_compiler_version: 19.16.27039.0

pholdBenchmark: federate_count vs real_time

real_time vs federate_count (log-log plot, singleCore core_type)

Legend:
- run_id: haMSb, core_type: singleCore, cxx_compiler_version: 19.16.27026.1
- run_id: m2pv2, core_type: singleCore, cxx_compiler_version: 19.16.27039.0

pholdBenchmark: federate_count vs real_time

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Legend:
- run_id: haMSb, core_type: zmqss, cxx_compiler_version: 19.16.27026.1
- run_id: m2pv2, core_type: zmqss, cxx_compiler_version: 19.16.27039.0

ringBenchmark: federate_count vs real_time

Legend:
- run_id: haMSb, core_type: inproc, cxx_compiler_version: 19.16.27026.1
- run_id: m2pv2, core_type: inproc, cxx_compiler_version: 19.16.27039.0

ringBenchmark: federate_count vs real_time

run_id: haMSb, core_type: ipc, cxx_compiler_version: 19.16.27026.1
run_id: m2pv2, core_type: ipc, cxx_compiler_version: 19.16.27039.0

ringBenchmark: federate_count vs real_time

run_id: haMSb, core_type: tcp, cxx_compiler_version: 19.16.27026.1
run_id: m2pv2, core_type: tcp, cxx_compiler_version: 19.16.27039.0

ringBenchmark: federate_count vs real_time

run_id: haMSb, core_type: tcpss, cxx_compiler_version: 19.16.27026.1
run_id: m2pv2, core_type: tcpss, cxx_compiler_version: 19.16.27039.0

ringBenchmark: federate_count vs real_time

run_id: haMSb, core_type: udp, cxx_compiler_version: 19.16.27026.1
run_id: m2pv2, core_type: udp, cxx_compiler_version: 19.16.27039.0

ringBenchmark: federate_count vs real_time

run_id: haMSb, core_type: zmq, cxx_compiler_version: 19.16.27026.1
run_id: m2pv2, core_type: zmq, cxx_compiler_version: 19.16.27039.0

ringBenchmark: federate_count vs real_time

run_id: haMSb, core_type: zmqss, cxx_compiler_version: 19.16.27026.1
run_id: m2pv2, core_type: zmqss, cxx_compiler_version: 19.16.27039.0

ringMessageBenchmark: federate_count vs real_time

run_id: haMSb, core_type: inproc, cxx_compiler_version: 19.16.27026.1
run_id: m2pv2, core_type: inproc, cxx_compiler_version: 19.16.27039.0

ringMessageBenchmark: federate_count vs real_time

run_id: haMSb, core_type: ipc, cxx_compiler_version: 19.16.27026.1
run_id: m2pv2, core_type: ipc, cxx_compiler_version: 19.16.27039.0

ringMessageBenchmark: federate_count vs real_time

Legend:
- run_id: haMSb, core_type: tcp, cxx_compiler_version: 19.16.27026.1
- run_id: m2pv2, core_type: tcp, cxx_compiler_version: 19.16.27039.0

ringMessageBenchmark: federate_count vs real_time

Legend:
- run_id: haMSb, core_type: tcpss, cxx_compiler_version: 19.16.27026.1
- run_id: m2pv2, core_type: tcpss, cxx_compiler_version: 19.16.27039.0

ringMessageBenchmark: federate_count vs real_time

real_time

run_id: haMSb, core_type: udp, cxx_compiler_version: 19.16.27026.1
run_id: m2pv2, core_type: udp, cxx_compiler_version: 19.16.27039.0

federate_count

ringMessageBenchmark: federate_count vs real_time

real_time

run_id: haMSb, core_type: zmq, cxx_compiler_version: 19.16.27026.1
run_id: m2pv2, core_type: zmq, cxx_compiler_version: 19.16.27039.0

federate_count

ringMessageBenchmark: federate_count vs real_time

timingBenchmark: federate_count vs real_time

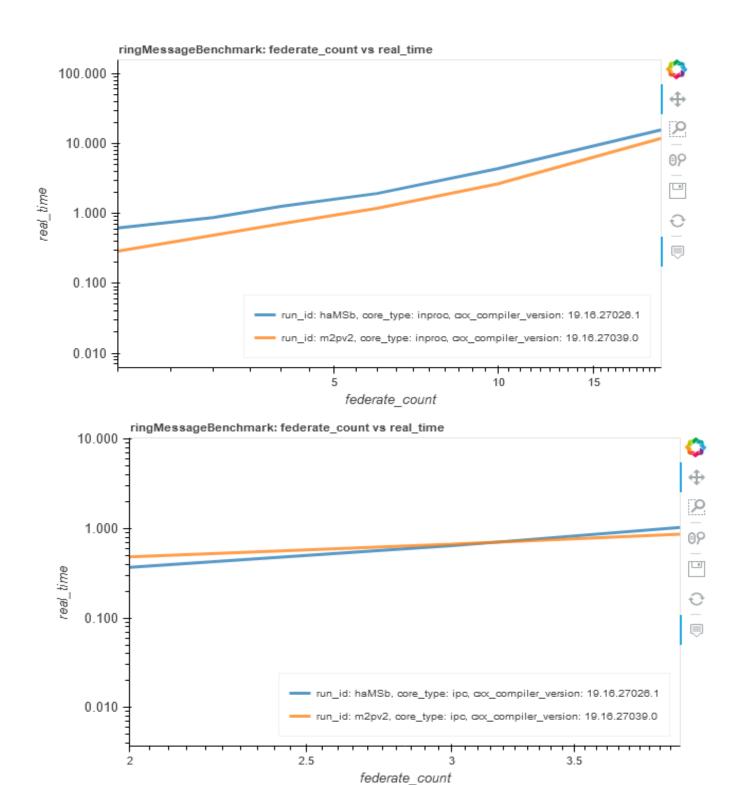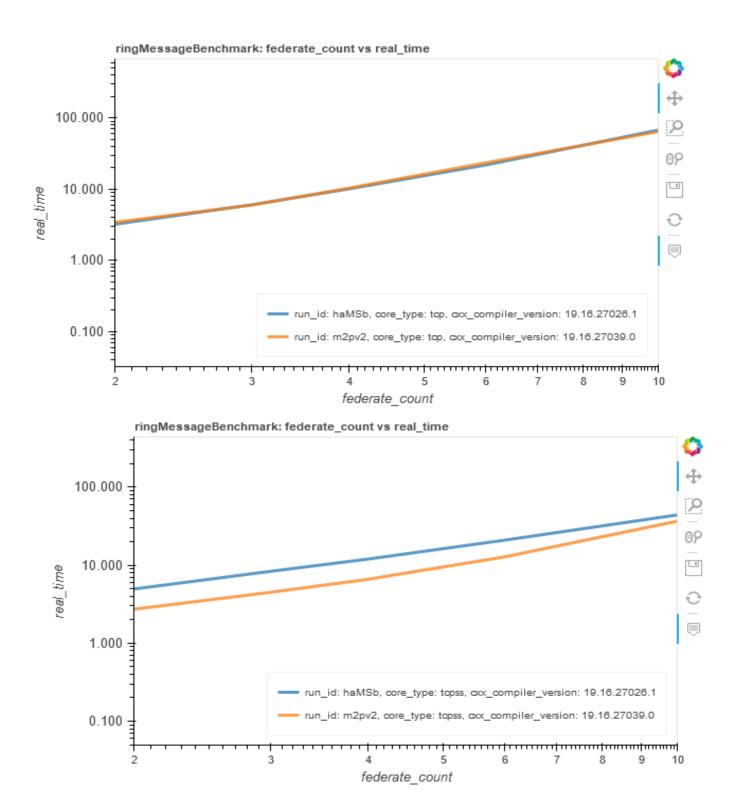timingBenchmark: federate_count vs real_time

run_id: haMSb, core_type: ipc, cxx_compiler_version: 19.16.27026.1
run_id: m2pv2, core_type: ipc, cxx_compiler_version: 19.16.27039.0

timingBenchmark: federate_count vs real_time

run_id: haMSb, core_type: singleCore, cxx_compiler_version: 19.16.27026.1
run_id: m2pv2, core_type: singleCore, cxx_compiler_version: 19.16.27039.0
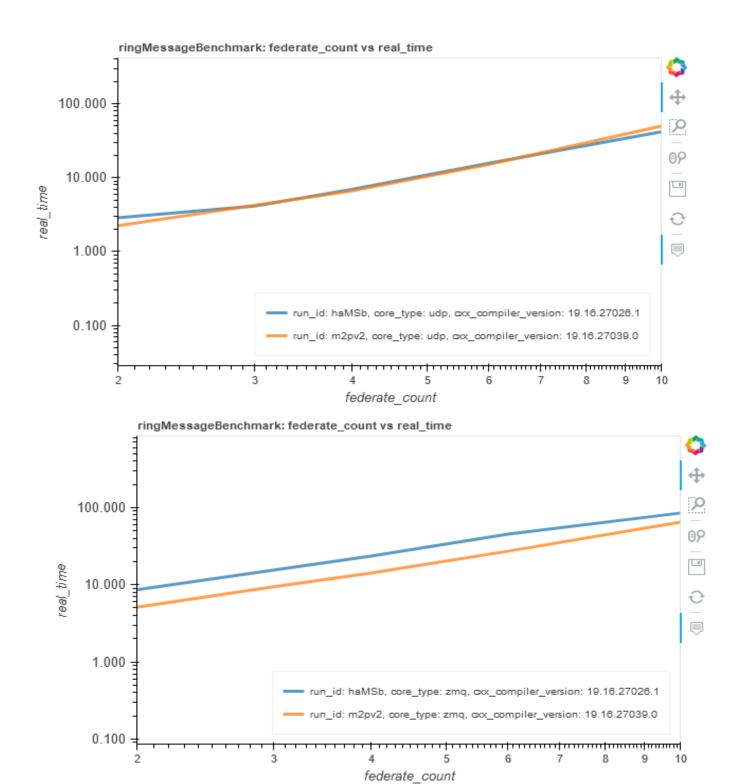
timingBenchmark: federate_count vs real_time
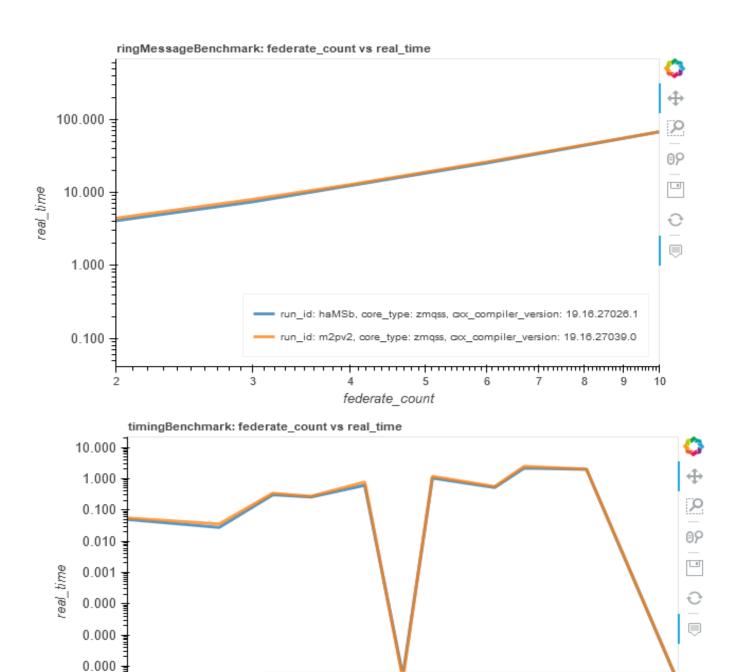
run_id: haMSb, core_type: tcp, cxx_compiler_version: 19.16.27026.1
run_id: m2pv2, core_type: tcp, cxx_compiler_version: 19.16.27039.0

timingBenchmark: federate_count vs real_time

run_id: haMSb, core_type: tcpss, cxx_compiler_version: 19.16.27026.1
run_id: m2pv2, core_type: tcpss, cxx_compiler_version: 19.16.27039.0

timingBenchmark: federate_count vs real_time

run_id: haMSb, core_type: udp, cxx_compiler_version: 19.16.27026.1
run_id: m2pv2, core_type: udp, cxx_compiler_version: 19.16.27039.0

timingBenchmark: federate_count vs real_time

run_id: haMSb, core_type: zmq, cxx_compiler_version: 19.16.27026.1
run_id: m2pv2, core_type: zmq, cxx_compiler_version: 19.16.27039.0

timingBenchmark: federate_count vs real_time