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SUMMARY: ThreadSanitizer: data race ../../include/tDpPinTiming.h:569 in tDpPinTimingBase::GetBFVisited()
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WARNING: ThreadSanitizer: data race (pid=24701)
  Read of size 1 at 0x7f2799e520de by thread T20 (mutexes: write M561678196425102200):
    #0 tDpPinTimingBase::GetBFVisited() ../../include/tDpPinTiming.h:569 (CHT.unstripped+0x4f3d77f)
    #1 taBF::IsPinBFVisited(dbPin*, db::SIGNAL_DIR) const /rnd1/rtan/hongtutsan/work/src/ta/taBF.cpp:634 (CHT.unstripped+0x4980c51)
    #2 taBF::AddEntry(dbPin*, db::SIGNAL_DIR, void*, bool, int*) /rnd1/rtan/hongtutsan/work/src/ta/taBF.cpp:395 (CHT.unstripped+0x497f9b1)
    #3 taBF::Add(dbPin*, db::SIGNAL_DIR, void*, bool) /rnd1/rtan/hongtutsan/work/src/ta/taBF.cpp:333 (CHT.unstripped+0x497f397)
    #4 taBFForward::AddSinkPinFanout(dbPin*, db::SIGNAL_DIR, void*) /rnd1/rtan/hongtutsan/work/src/ta/taBF.cpp:935 (CHT.unstripped+0x49827a4)
    #5 taUpdateSigArrTime::AddSinkPinFanoutForArrUpdate(dbPin*) /rnd1/rtan/hongtutsan/work/src/ta/taUpdateSignal.cpp:1383 (CHT.unstripped+0x4ec15e1)
    #6 taUpdateSigArrTime::UpdateDrivenPinArrTime(dbPin*, db::SIGNAL_DIR, dbPin*) /rnd1/rtan/hongtutsan/work/src/ta/taUpdateSignal.cpp:1281 (CHT.unstripped+0x4)
    #7 taUpdateSigArrTime::SourceAct(dbPin*, db::SIGNAL_DIR, void*) /rnd1/rtan/hongtutsan/work/src/ta/taUpdateSignal.cpp:1070 (CHT.unstripped+0x4ebfceb)
    #8 taMtUpdateArrTime::HandleEntry(taMtUpdateArrTime*, taUpdateSigArrTime*, taDirPin*) /rnd1/rtan/hongtutsan/work/src/ta/taUpdateSignal.cpp:595 (CHT.unstripped+0x4ebdb14)
    #9 taMtUpdateArrTime::HandleObj(taMtCaller*, void*) /rnd1/rtan/hongtutsan/work/src/ta/taUpdateSignal.cpp:565 (CHT.unstripped+0x4ebdb14)
    #10 taMtCaller::CallHandleObjFunc(taMtCaller*, void*) /rnd1/rtan/hongtutsan/work/src/ta/taMtCaller.h:120 (CHT.unstripped+0x4f5c505)
    #11 taMtCaller::MtFunc(void*) /rnd1/rtan/hongtutsan/work/src/ta/taMtCaller.cpp:304 (CHT.unstripped+0x4c5a8ca)
    #12 utThread::WaitForTask(void*) <null> (CHT.unstripped+0x631a0e4)

  Previous write of size 1 at 0x7f2799e520de by thread T21 (mutexes: write M560833771494967928, write M585889241606864120):
    #0 tDpPinTimingBase::SetBFVisited(bool) ../../include/tDpPinTiming.h:565 (CHT.unstripped+0x4f3d6ba)
    #1 taBF::SetPinBFVisited(dbPin*, db::SIGNAL_DIR, bool, bool) /rnd1/rtan/hongtutsan/work/src/ta/taBF.cpp:616 (CHT.unstripped+0x4980b88)
    #2 taBF::AddEntry(dbPin*, db::SIGNAL_DIR, void*, bool, int*) /rnd1/rtan/hongtutsan/work/src/ta/taBF.cpp:409 (CHT.unstripped+0x497fb6a)
    #3 taBF::Add(dbPin*, db::SIGNAL_DIR, void*, bool) /rnd1/rtan/hongtutsan/work/src/ta/taBF.cpp:333 (CHT.unstripped+0x497f397)
    #4 taBFForward::AddSinkPinFanout(dbPin*, db::SIGNAL_DIR, void*) /rnd1/rtan/hongtutsan/work/src/ta/taBF.cpp:935 (CHT.unstripped+0x49827a4)
    #5 taUpdateSigArrTime::AddSinkPinFanoutForArrUpdate(dbPin*) /rnd1/rtan/hongtutsan/work/src/ta/taUpdateSignal.cpp:1383 (CHT.unstripped+0x4ec15e1)
    #6 taUpdateSigArrTime::UpdateDrivenPinArrTime(dbPin*, db::SIGNAL_DIR, dbPin*) /rnd1/rtan/hongtutsan/work/src/ta/taUpdateSignal.cpp:1281 (CHT.unstripped+0x4)
    #7 taUpdateSigArrTime::SourceAct(dbPin*, db::SIGNAL_DIR, void*) /rnd1/rtan/hongtutsan/work/src/ta/taUpdateSignal.cpp:1070 (CHT.unstripped+0x4ebfceb)
    #8 taMtUpdateArrTime::HandleEntry(taMtUpdateArrTime*, taUpdateSigArrTime*, taDirPin*) /rnd1/rtan/hongtutsan/work/src/ta/taUpdateSignal.cpp:595 (CHT.unstripped+0x4ebdb14)
    #9 taMtUpdateArrTime::HandleObj(taMtCaller*, void*) /rnd1/rtan/hongtutsan/work/src/ta/taUpdateSignal.cpp:565 (CHT.unstripped+0x4ebdb14)
    #10 taMtCaller::CallHandleObjFunc(taMtCaller*, void*) /rnd1/rtan/hongtutsan/work/src/ta/taMtCaller.h:120 (CHT.unstripped+0x4f5c505)
    #11 taMtCaller::MtFunc(void*) /rnd1/rtan/hongtutsan/work/src/ta/taMtCaller.cpp:304 (CHT.unstripped+0x4c5a8ca)
    #12 utThread::WaitForTask(void*) <null> (CHT.unstripped+0x631a0e4)
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394 // check visited flags.
395 if (!isSkipCheck && IsPinBFVisited(pin, dir))      Gong, Xiang, 3
396     return false;
397
398 if (lvlPtr) {
399     *lvlPtr = level;
400 }
401
402 taDirPinList* eList = GetSlot(level);
403 if (unlikely(!eList)) {
404     eList = new (GetPool()) taDirPinList(GetEntryPool());
405     SetSlot(eList, level);
406 }
407 taDirPin* entry = new (GetDirPinPool()) taDirPin(pin, dir, data);
408 eList->AddTail(entry);
409 SetPinBFVisited(pin, dir, true);

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0001: 00 IsPinBFVisited 00000000 398 - 408 0000000000 409 0 SetPinBFVisited
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1. 000000000000 data race
000000000000000000000000 data race00 patch 000
/rnd1/rtn/save_patch/hongtu_cht_tsan_bitfield.patch
2. 00 ut 0 tsan 0 crash
000000000000000000000000

ag TSan http://10.30.200.21:8088/projects/hongtu-emir/wiki/Debugging_and_profiling_tech#Data-race-detection

000000 <https://github.com/google/sanitizers/wiki/ThreadSanitizerPopularDataRaces>

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