2024-12-31 Trace分析

> 本次Trace的绝对时间数据有问题, 并不是标准测试环境的消耗时间. 本次只看时间占Tick百分比. *(% of Root: **EngineTick**)*

2024-12-31 Trace分析

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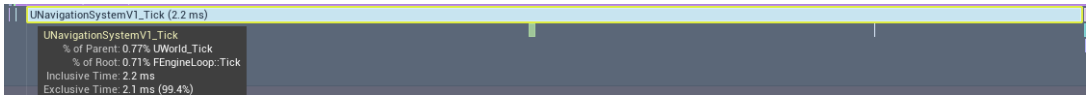
WorldTick

NavigationSystem

- 总览: 整体占比偏小. 低优先级处理,可先处理更大块严重的问题
- 占比: **0.71%**
- 问题: Trace不完整, 具体里面干了什么并不知道
- 

RVOWorldSubSystem

- 总览: 需要占用一定的时间. 内部执行的Trace有部分未知的异常数据, 猜测可能是避障的复杂环境不一样导致的. 可以新增Trace确认下看是否有优化的空间.
- 占比: 2.47%
- 问题: Trace不完整. 漏掉了部分异常的Trace.
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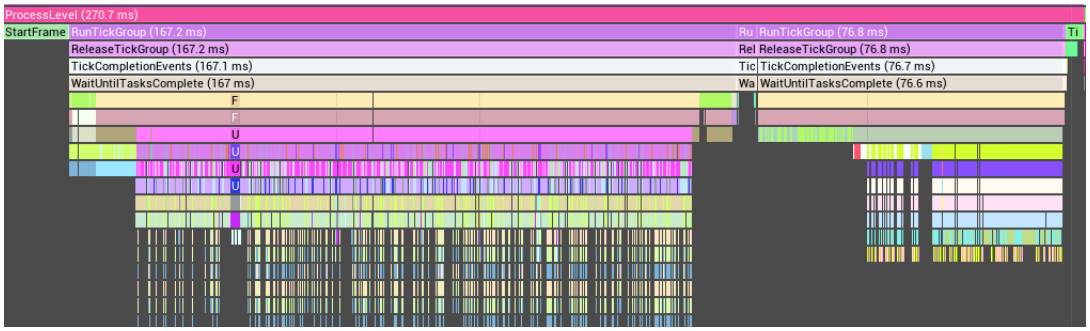
ProcessLevel-1

- 总览: 主要的Tick逻辑环节
- 占比: **89.18%**
- 问题:
- 

StartFrame

- 总览: 主Tick环节的帧首,有挺大的固定消耗
- 占比: **5.4%**
- 问题: Trace内容不完整
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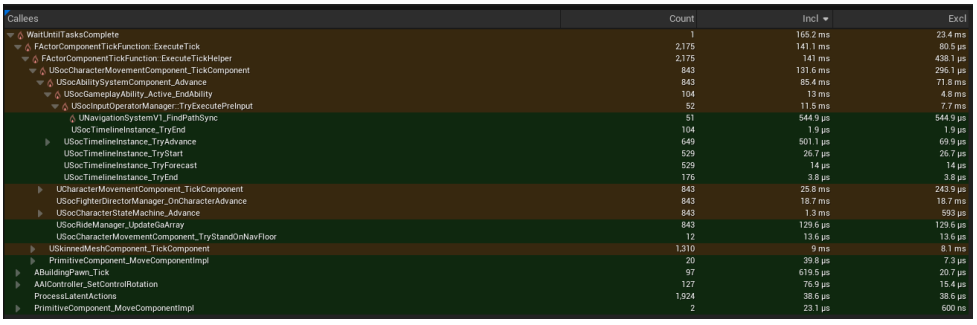
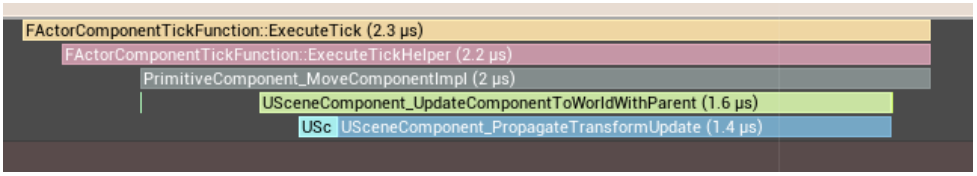
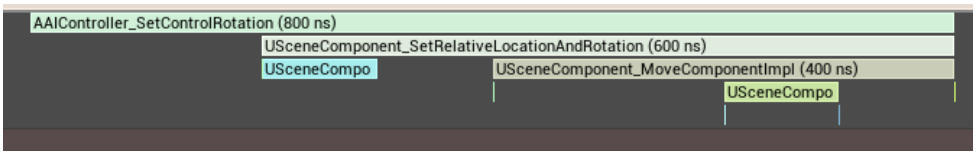
RunTickGroup

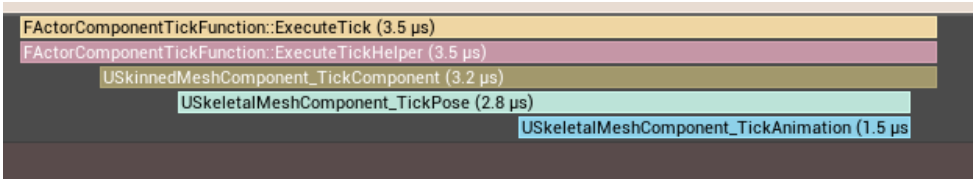
PrePhysics

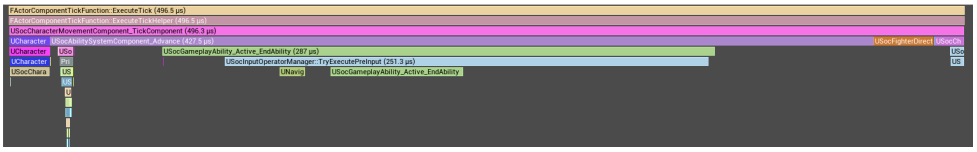
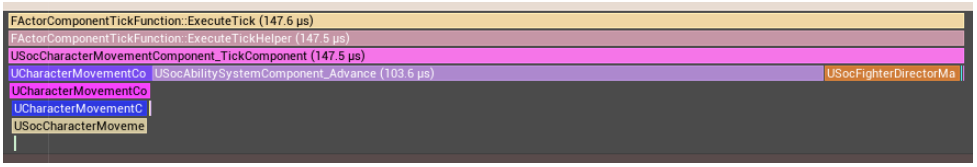
- 概览: 执行物理前的Tick组, 占比时间为最大头的, 主要执行AbilitySystemComponent_Advance & Movement相关内容
- 占比: **54%**
- Callees
  - 

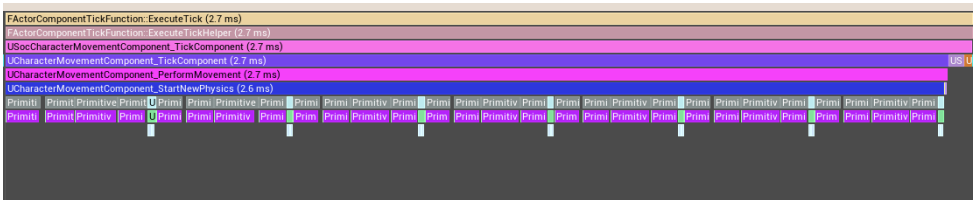
- MoveComponent

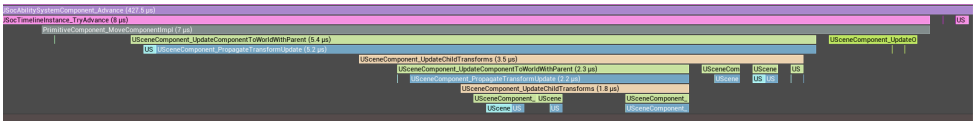
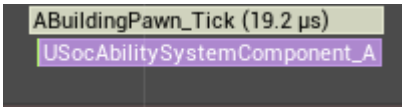
    - 

- AIController_SetControlRotation
    - 

- SkinnedMeshComponent
    - 

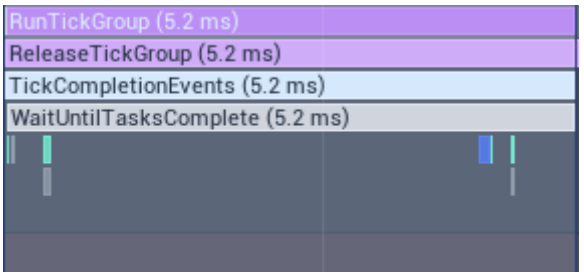
- **CharacterMovementComponent**
    - 
    - 

    - 

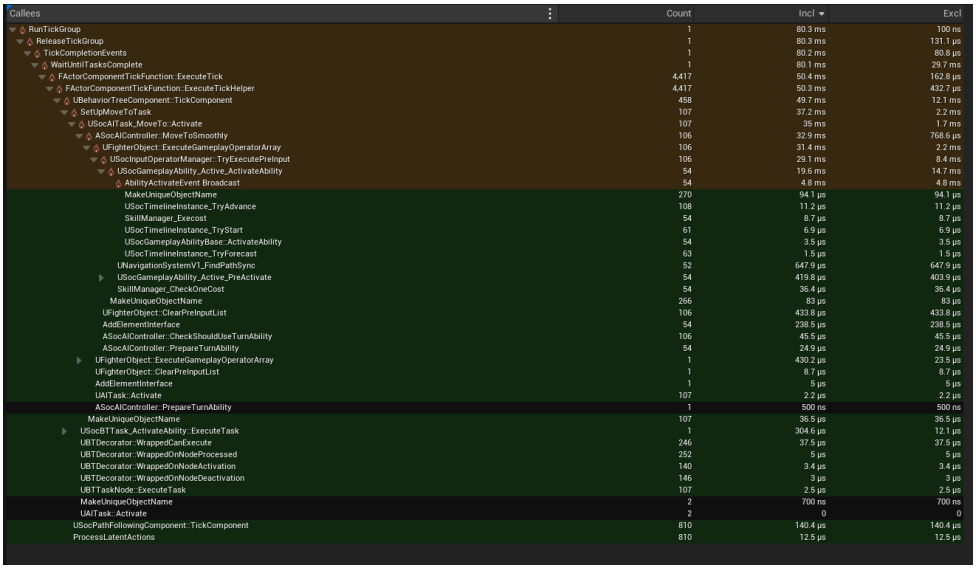
- **AbilitySystemComponent_Advance**
    - 
- ABuildingPawn_Tick
    - 

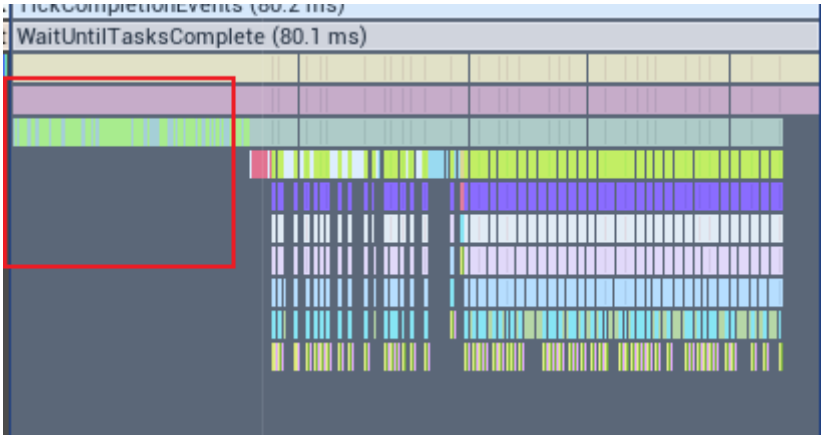
StartPhysics

- 概览: 开始物理的Tick组, 占比较小
- 占比: **1.71%**
- 问题: Trace不全, 只能看到零星的Chaos的Trace\

- 

DuringPhysics

- 概览:物理执行Tick组
- 占比:**26.22%**
- Callees
  - 

  - 前未知领域,零星看到一些PathFollowing的内容. 占比大概三分之一
    - 

  - BehaviorTreeComponent
    - 在未发生战斗情况下,大部分消耗来自于Move时调用到转身GA. 技能内部最大的地方为一个全局的技能激活事件
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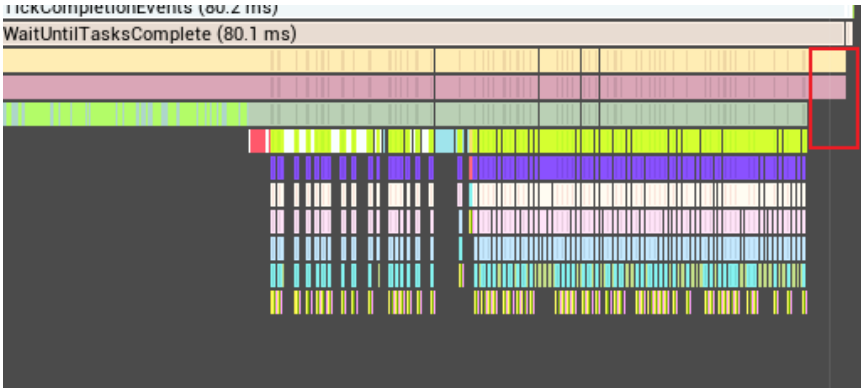
  - 后未知领域, 占比稍小，只能看到有ActorComponentTick, 看不到任何信息

- 

EndPhysics

- 占比: 0.17%

PostPhysics

- 占比: 0.01%

PostUpdateWork

- *占比: 0%*

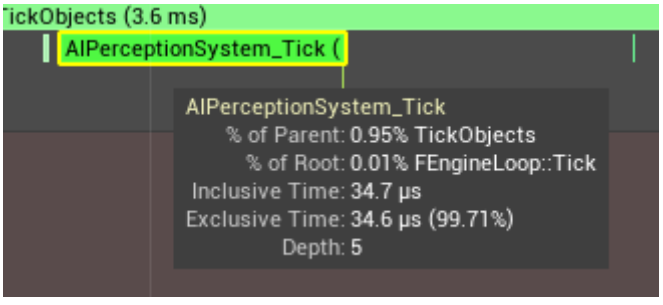
LastDemotable

- *占比: 0%*

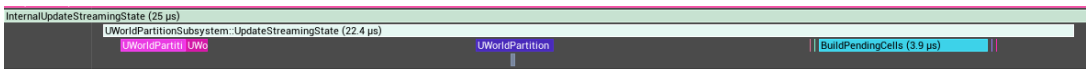
TimerManagerTick

- 占比: 0.02%

World TickObjects Tick

- 概览: 大部分自己实现TickableObject的对象. Trace不完整
- 占比: 1.19%
    - AI感知系统的Tick位于此处
    - 

UpdateStreamingState

- 占比: 0.01%
- 

NetBroadcastTick

- 占比: 0%
- > 没有客户端机器人

GameEngineTick

ULogicSystem_TickComponent

- 总览: 业务逻辑的Tick入口, 调用各个Components的Tick
- 占比: 3.41%
- 问题:
    - Trace信息不准确, 大部ComponentTick没有Trace
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    - 在LogicSystemTick前 有一个LogicSystem_EndTickComponent的调用, 是在WorldTickEnd中调用的. LogicSystem的Tick是划分在了GameEngineTick 整体比WorldTick靠后. 原因可能是USocContext作为EngineSubSystem, 实现TickableObject时不方便返回World, 或本身就不应依赖World.
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空白

- 帧尾有一片空白
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