

Quantum.SimulationConfig Class Reference

The SimulationConfig holds parameters used in the ECS layer and inside core systems like physics and navigation. [More...](#)

Inherits Quantum.AssetObject.



Public Attributes

AutoLoadSceneFromMapMode	<p>AutoLoadSceneFromMap = AutoLoadSceneFromMapMode.UnloadPreviousSceneThenLoad</p> <p>This option will trigger a Unity scene load during the Quantum start sequence.</p> <p>This might be convenient to start with but once the starting sequence is customized disable it and implement the scene loading by yourself. "Previous Scene" refers to a scene name in Quantum Map. More...</p>
SimulationConfigChecksumErrorDumpOptions	<p>ChecksumErrorDumpOptions</p> <p>Additional options for checksum dumps, if the default settings don't provide a clear picture. More...</p>
	<p>FP ChecksumSnapshotHistoryLengthSeconds = 3</p> <p>How long to store checksumed verified frames. The are used to generate a frame dump in case of a checksum error happening. Not used in Replay and Local mode. More...</p>
SimulationUpdateTime	<p>DeltaTimeType = SimulationUpdateTime.Default</p> <p>Configure how the client tracks the time to progress the Quantum simulation from the QuantumRunner class. More...</p>
FrameBase.EntitiesConfig	<p>Entities</p> <p>Global entities configuration More...</p>
	<p>int HeapExtraCount = 0</p> <p>Sets extra heaps to allocate for a session in case you need to create 'auxiliary' frames than actually required for the simulation itself More...</p>
	<p>int HeapPageCount = 256</p> <p>Define the max heap page count for memory the frame class uses for custom allocations like QList<> for example. More...</p>
	<p>int HeapPageShift = 15</p> <p>Define the max heap size for one page of memory the frame class uses for custom allocations like QList<> for example. More...</p>
HeapTrackingMode	<p>HeapTrackingMode = HeapTrackingMode.Disabled</p> <p>If and to which extent allocations in the Frame Heap should be tracked when in Debug mode. Recommended modes for development is DetectLeaks. While actively debugging a memory leak, TraceAllocations mode can be enabled (warning: tracing is very slow). More...</p>
Navigation.Config	<p>Navigation</p> <p>Global navmesh configurations. More...</p>

PhysicsCommon.Config

Physics

Global physics configurations. [More...](#)

int

ThreadCount = 2

Override the number of threads used internally. [More...](#)

Detailed Description



The SimulationConfig holds parameters used in the ECS layer and inside core systems like physics and navigation.

Member Data Documentation

◆ Navigation

[Navigation.Config](#) [Quantum.SimulationConfig.Navigation](#)

Global navmesh configurations.

◆ Physics

[PhysicsCommon.Config](#) [Quantum.SimulationConfig.Physics](#)

Global physics configurations.

◆ Entities

[FrameBase.EntitiesConfig](#) [Quantum.SimulationConfig.Entities](#)

Global entities configuration

◆ AutoLoadSceneFromMap

[AutoLoadSceneFromMapMode](#) [Quantum.SimulationConfig.AutoLoadSceneFromMap](#) = [AutoLoadSceneFromMapMode.UnloadPreviousSceneThenLoad](#)

This option will trigger a Unity scene load during the Quantum start sequence.
This might be convenient to start with but once the starting sequence is customized disable it and implement the scene loading by yourself. "Previous Scene" refers to a scene name in Quantum Map.

◆ DeltaTimeType

SimulationUpdateTime `Quantum.SimulationConfig.DeltaTimeType = SimulationUpdateTime.Default`

Configure how the client tracks the time to progress the Quantum simulation from the QuantumRunner class.

◆ **ThreadCount****int** `Quantum.SimulationConfig.ThreadCount = 2`

Override the number of threads used internally.

◆ **ChecksumSnapshotHistoryLengthSeconds****FP** `Quantum.SimulationConfig.ChecksumSnapshotHistoryLengthSeconds = 3`

How long to store checksummed verified frames. The are used to generate a frame dump in case of a checksum error happening. Not used in Replay and Local mode.

◆ **ChecksumErrorDumpOptions****SimulationConfigChecksumErrorDumpOptions**
Quantum.SimulationConfig.ChecksumErrorDumpOptions

Additional options for checksum dumps, if the default settings don't provide a clear picture.

◆ **HeapTrackingMode****HeapTrackingMode** `Quantum.SimulationConfig.HeapTrackingMode = HeapTrackingMode.Disabled`

If and to which extent allocations in the Frame Heap should be tracked when in Debug mode. Recommended modes for development is **DetectLeaks**. While actively debugging a memory leak, **TraceAllocations** mode can be enabled (warning: tracing is very slow).

◆ **HeapPageShift****int** `Quantum.SimulationConfig.HeapPageShift = 15`

Define the max heap size for one page of memory the frame class uses for custom allocations like `QList<>` for example.

$2^{15} = 32.768$ bytes

```
TotalHeapSizeInBytes = (1 << HeapPageShift) * HeapPageCount
```

◆ HeapPageCount

int Quantum.SimulationConfig.HeapPageCount = 256

Define the max heap page count for memory the frame class uses for custom allocations like QList<> for example.

```
TotalHeapSizeInBytes = (1 << HeapPageShift) * HeapPageCount
```



◆ HeapExtraCount

int Quantum.SimulationConfig.HeapExtraCount = 0

Sets extra heaps to allocate for a session in case you need to create 'auxiliary' frames than actually required for the simulation itself