Upgrade Guide

 $[2.0.2] \rightarrow [2.0.3]$

• KD-Trees are now generic. If you want to achieve the same result as with the previous versions, use Position3D instead of float3. If however, you now want to search for specific entries, consider using PositionWithIndex3D or a custom struct instead!

 $[1.5.2] \rightarrow [1.5.3]$

- Some KD-Tree parts still used Vector3/Vector2 instead of float3/float2. This has been fixed, but may mean that you have to change the data format of your Arrays or Reinterpret() them
- Many methods now do not need to return JobAllocations anymore (they allocations are chained and disposed after the inner jobs are completed)
- NativePolygon2DHandle now requires an owner object reference (it will mark it as dirty as soon as the polygon changes. This is so that it is possible to react to changes to the unserializable polygon with events)

[1.5.1] -> [1.5.2]

 $[1.5.0] \rightarrow [1.5.1]$

All Overlap Tests in the ShapeOverlap class now consistently use the squared radius (instead
of it being mixed; squared is more performance for most cases). The interface has not
changed (still a float), so be careful if you used any of these tests

 $[1.4.4] \rightarrow [1.5.0]$

- Removed Intersection-Test from Line Segment Class as all intersection tests are in the ShapeIntersection class (code was duplicate)
- BoundingRectangleJob and BoundingBoxJob now have an additional **addedMargin** parameter. E.g. an added margin of one unit adds a space of one unit to each side. It is done in the job, so that multiple jobs can be queued in a row with dependencies

[1.4.3] ->[1.4.4]

--

 $[1.4.2] \rightarrow [1.4.3]$

- YZ in **CardinalPlane** is now ZY and ordered this way (the other way did not make too much sense)
- **Bounds.GetVolume()** extension has been renamed to **Bounds.Volume()** so that it is consistent with Volume() and Area() methods of other classes (Tetrahedra, Cylinder, etc.)
- Tetrahedron was misspelled as Tetrahedon. This is now fixed and named correctly
- MeshUtil.CreateCircle() and MeshUtil.CreateRing() have the circlePoints-parameter at the
 end and as optional parameter now. This makes the ordering consistent across MeshUtil in
 general

[1.4.1] -> [1.4.2]

- **SpatialSortMode** has been renamed to **CardinalPlane**, as it is now used widely and not only in KD-Trees anymore
- **MeshUtilDOTS** has been **removed**. Everything can now be found in **MeshUtil** (cleaner and simpler)
- CreatePolygonMesh (now in MeshUtil) now has an optional CardinalPlane Parameter
- 2D Polygon Point Location Jobs have been improved performance-wise, but require **JobAllocations** as an out-parameter now
- Points and separators of NativePolygon2D are now UnsafeLists, instead of NativeLists. This is necessary, so that they can be put inside NativeContainers in the future (which is a requirement for Voronoi Diagrams)
- Ear Clipping Triangulation: Separators were not necessary as job-parameter and have been removed
- HullAlgorithms.CreateConvexHull and the subsequent jobs now use a NativeArray instead of a NativeList