Flex Partition Changelog

Version 2.0 (July 24, 2026)

- Added PCG runtime integration, lightweight proxy states, and streaming behaviors.
- Added actor/player data slots and Expose-on-Spawn support for streamed actors.
- Rebuilt Save/Load with async processing, metadata, thumbnails, and map-scoped slots.
- Expanded runtime APIs, grid controls, statistics, and debugging tools.
- Improved custom spawn/despawn handles and Flex Pool integration.

Version 1.9 (April 3, 2026)

- Added a new bounds-based streaming system for actor relevance.
- Added configurable bounds options, including runtime bounds, CDO bounds, and collision-based filtering.
- Refactored streaming types and improved validation and persistence workflow.

Version 1.8.5 (March 24, 2026)

- Improved the spatial grid system.
- Added project-level Editor Settings with an apply-to-world option.
- Added minor internal improvements.

Version 1.8 (February 21, 2026)

Core Changes:

- Replaced ActorStreamingIdentifier with **FGuid** for more reliable and deterministic actor identification. (Renamed GetStreamingGuid accordingly.)
- Introduced **FActorStreamingConfig** to centralize and simplify streaming settings at the class level.
- Added **bEnableSave** in FlexPartitionComponent to control whether an actor participates in save operations.
- Refactored **FlexPartitionHandle** to fully support K2 nodes and Blueprint extensibility.
- Improved spawn/despawn rate limiting to better distribute streaming workload across frames.
- Improved internal state handling for streaming cycles to ensure consistent activation and deactivation behavior.

Save System:

- Added optional automatic level name prefix for save slots. (Controlled by **bUseLevelPrefix** in Editor Settings.)
- Exposed **SaveStreamingData** and **LoadStreamingData** to Blueprints through UFlexPartitionFunctionLibrary.
- Implemented automatic state capture and restore for streaming actors.
- Added lightweight per-actor custom data serialization via GetActorData / SetActorData (Blueprint compatible).
- Improved save reliability across map reloads and streaming transitions.

Version 1.7 (March 5, 2025)

Restructuring & Optimization:

- Removed archetypes to allow grid modifications on level-instantiated actors.
- Eliminated registration queues for a more streamlined and deterministic system.
- Replaced line trace (Check Floor) with a more efficient collision validation using World Partition streaming queries.

- Optimized spatial hash grid lookups for large-scale actor populations.

Expanded Functionality & C++ Support:

- Introduced **FlexPartitionHandle** to centralize and customize actor spawning and despawning, giving developers full control over streaming behavior.
- Enabled extensible spawn/despawn overrides for custom lifecycle management.
- Added support for **FlexPool** integration through FlexPartitionHandle, improving performance by reducing redundant spawning and reusing existing actors efficiently.
- Improved modularity to facilitate custom C++ implementations.

Version 1.6 (November 3, 2024)

Stability & Streaming Sources:

- Soft Object Class Fix – Resolved dedicated server issues related to soft object references.
- Source Streaming Enhancements – Added component to simulate streaming points, such as player positions.
- Manual Streaming Controls – New setting to enable or disable the player's position as the streaming source.
- FlexPartition.DrawActorLocation now excludes obstructed visibility.
- Added console variable to control debug bounding box thickness.
- System initialization now occurs before BeginPlay, improving startup reliability.

Version 1.5 (August 6, 2024)

Grid Restructuring:

- Optimized sector-based grids for 2D and 3D environments, improving search and performance.
- Improved spatial relevance calculations for large worlds.
- Introduced a new variable for customizing actor parameters.
- Ensured consistent computational costs across multiple players and streaming sources.
- Expanded support for Spawn, Destroy, and Get Actor commands.
- Added tools for drawing inactive actors.
- Visualized the grid's center markers.
- Implemented Check Floor on Spawn to ensure actors are placed on valid surfaces, preventing placement issues on uneven terrain or slow streaming scenarios.

Version 1.4 (May 30, 2024)

- 3D Grid Mode – Introduced dynamic 3D grid support with customizable settings for per-level configurations.

Version 1.3 (May 23, 2024)

- Debugging Actor Locations – Enhanced tools for precise location tracking of actors.
- Multiplayer Support – Optimized grid systems for multiple player controllers.

Version 1.2 (April 17, 2024)

- 2D Projection Support – Enabled grid structuring for irregular terrain.
- Z-Axis Relevance – Added Z-axis as a factor in grid relevance calculations.
- Spatial Grid Debugging – Improved debugging for grid visualization.

Version 1.1 (April 11, 2024)

- Persistent Debug Grids – Always displayed independently of the main subsystem.
- Performance Optimization – Calculations now occur only when actively debugging.
- Streaming Filters – Added filters to prevent duplicate actor registrations in World Partition maps.
- Error Logging – Improved log clarity for core functions.