Apparatus Features

The current list of features includes:

- ECS at its maximum. A complete Unreal Engine integration of the data-oriented workflow.
- Loyal to the ecosystem. Both C++ and Blueprint development are supported.
- Best of two worlds. Flexible UObject-based Details and performant struct-based Traits.
- Pedal to the metal. The Chunk-based data storage is hardware-first. Quite a bit of performance optimizations on top: Filter-based caching, fast bit-array masking, mainline Component indexing and more.
- Power at hand. C++Lambda-based operatings with an automatic argument delivery.
- Querying with ease. A versatile Component-including and Component-excluding filtering for the Mechanics.
- Bitwise Flagmark filtering support for boolean-based states.
- Straightforward editing. Assign and customize your Trait/Detail blocks right from the Details Panel in Unreal Editor.
- Multiple Details of the same class on a single Subjective are supported. All of the available Detail combinations are processed in the operating body.
- Inheritance at best. The Detail classes can be inherited for extra modularity and flexibility.
- Dedicated in-Editor user experience touches for some clear reading, validation and overall ease of use.
- Full concurrent (multi-threaded) iterating support with a dedicated compile-time Solid semantic.
- Ready to speak. An elegant and versatile custom networking solution built upon the Unreal's replication and RPC functionality.
- Steady-ticking implementation for some extra stability of your game frame-dependent logic.
- Thoroughly documented API with a dedicated user manual wiki pages.