

ECS to Apparatus (Glossary)

Apparatus provides all of the basic ECS idioms and even more. To be unambiguous (and self-sustained) our framework uses a somewhat different naming scheme as compared to the classic ECS. Here is the list of the terms used throughout this manual:

Common Term	Term	Description	Known ECS Term
Subject	Subject	The low-level composition of Traits.	Entity
	Subjective	The higher-level part of a Subject consisting of Details.	N/A
Part	Trait	The struct-based building data block.	Component
	Detail	The class-based building data block.	Component
Iterable	Chunk	The storage for Subjects Slots and Traits.	Chunk
	Belt	The storage for Subjective Slots.	Chunk
N/A	Slot	A single element in an Iterable.	N/A
	Flagmark	The manual bit flags specification of the Subject.	N/A
	Traitmark	The traits composition specification of the Subject.	Archetype
	Detailmark	The details composition specification of the Subjective.	Archetype
	Fingerprint	The full specification of a Subject's topology.	Archetype
	Filter	The including/excluding selector of the Subjects.	Query
	Mechanic	The processing logic for the Subjects.	System
	Mechanism	The world-based subset of Subjects and Mechanicals.	N/A
	Machine	The global runtime state of the framework.	N/A

Reasoning (Rationale)

Why did we chose the non-conventional naming scheme in the first place? Well, we obviously consider ours to be a better one overall and here is why.

“Entity” is a much broader term, that is usually reserved for some general-purpose objects and is quite useful as a general documentation term. On the other hand the word “Subject” is better associated with something that is not autonomous by its own and is actually dependent, subordinate. The word “system” is also so much broader and could denote almost anything, e.g. particle system, save/load system, system library, etc. “Mechanic” is clearly something very deeply related to the game ticking and the game design as a whole. As of “component” – this is basically already reserved by Unreal Engine [itself](#). “Detail”/“Trait” are free to use and are quite obvious to be Parts of something (i.e. Subjects).

It may be hard to remember at first, but you'll get used to it and the logic behind the terms. So to sum this all up, the “Entity Component System” is basically transformed into the “Subject Part Mechanic”. Please, get back to this article from time to time if you get lost.

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