

Component Proposal

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For my response to the summative brief I am going to create a plugin for Unreal Engine that gives developers an easy way to setup and control a character's leveling system within their game. This would involve the ability to set things like the level cap, the exp curve, and how experience is rewarded on a player and world basis.

I am planning to implement this in a similar way to the controller system is implemented in engine. The user would be able to create a new leveling system, defining the basic things that it needs to run, then attaching it to whichever characters they see fit.

I am giving myself a flexible scope for this implementation as I believe that a valuable extension for the component would be to include the management of character stats, both static and expendable.

My order for implementation would be as follows:

- Event message system to control flow of exp from enemies to players
- Level curve and use with exp
- Modifiers for exp to control individual and world exp gain
- Stat system that can be altered with level gain
- Capturing damage data to be able to alter expendable stats

ID	Task	Status	Priority	Time Estimated (Hours)	Time Taken (Hours)	Dependency	Notes
P-001	Initial learning	Completed	High	5	8		
P-002	Base level component layer	Completed	High	5	10		
P-003	EXP receiver	Completed	High	3	1	P-002	Ability to have different types (i.e. monster, quest, world)
P-004	EXP dispatcher	Completed	High	3	4	P-002	Ability to have different types (i.e party, individual, per hit)
P-005	EXP curve + editor	Completed	Low	2	1	P-002	
P-006	Ability to add dynamic stats (i.e Health, Mana)	Completed	Medium	5	20		
P-007	Ability to add static stats (i.e Strength, Dexterity)	Abandoned	Medium	5		Task combined with P-006	
P-008	Ability to have stat modifier	Completed	Low	5	4	P-002/006/007	
P-009	Item container for modifiers	Completed	Low	4	3	P-006/008	Able to attach to attribute
P-010	Demo	Completed	High	4	5		
P-011	Documentation	Completed	High	4	8		
Slack Time				24	10		
Total				69	74		