Random posts I found on the internet that have useful modding info

# Data Driven vs. Lua abilities

Source:

<https://moddota.com/forums/discussion/310/can-someone-explain-what-these-do-datadriven-hook-code>

[Capruce](https://moddota.com/forums/profile/3813/Capruce)

[June 2015](https://moddota.com/forums/discussion/comment/1076/" \l "Comment_1076) Posts: 6

Firstly, Data Driven abilities are different to Lua abilities in the way you initially lay them out.

Data Driven abilities use the baseclass "ability\_datadriven" and feature a set of KV blocks to respond to events and do things such as deal damage or fire a projectile, as shown [here](http://moddota.com/forums/discussion/14/datadriven-ability-breakdown-documentation)

Lua based abilities (like the one you've shown) use the base class "ability\_lua" and DO NOT recognise the use of the aforementioned KV blocks like "OnUpgrade" but instead link to a lua script which features functions, that do the same thing e.g. ability:OnUpgrade(). The main advantage of lua skills is the ability to dynamically return a value and filter user actions.

This isn't the complete code for the skill, you will find the lua code in scripts/vscripts/pudge\_meat\_hook\_lua.lua

The link I posted will also explain the use of AbilitySpecials but from the lua code you can see the use of GetSpecialValueFor() which is what lets you access these ability specials from within the lua code.

Source:

<https://www.reddit.com/r/Dota2Modding/comments/3rwty4/requesting_advice_regarding_ability_coding_data/>

[[–]](javascript:void(0))[**MNoya**](https://www.reddit.com/user/MNoya) 3 points 5 months ago

Top of Form

Basically there's 4 "levels" of ability coding:

1. **Ability override**: using a default dota ability BaseClass or overriding it in abilities\_override, just to change basic values. This is generally used when you need a 1:1 copy of the skill and nothing else
2. **Pure ability\_datadriven abilities**: simple KeyValue file, basically uses all the ability and modifier events to create an ability from scratch but without any conditional logic.
3. **ability\_datadriven with RunScript**: in addition to KVs, most of the times you want do anything a bit complex you'll have to use Lua for game logic (to check things such as "Is the target stunned?", "Do I have this other ability on cooldown?", "Make these abilities hidden", etc etc). Don't ever hesitate to call a RunScript when the simple datadriven logic isn't enough.
4. **ability\_lua**: This is relatively new and has access to certain things that DD abilities can't do (basically target checking, dynamic manipulation and some DD-unlinked properties), but I'd still recommend new guys to stay away from this until you have experienced enough with lua scripts, as it involves some knowledge on what do the clients know and what can only be executed on the server, as well as handling multiple modifier classes instead of just defining the modifiers all in the single KV file.

Bottom of Form