Doomsday Engine - Feature #1617

Scoped definitions and variables

2013-10-21 07:43 - skyjake

Status:	New		**Start date:**	2013-10-21
Priority:	High		**% Done:**	0%
Assignee:	Deng Team			
Category:	Redesign			
Target version:	Modding			

Description

Often it is necessary to limit the effect of some definition or variable to a specific map, episode, game, global variable state, or perhaps even a single room in a map. This need manifests in several places:

- A mod/TC might want to override certain variables/definitions for an entire game.
- All the maps of an episode might want to use a specific sky texture.
- Particle effects may be defined for specific sectors in a map (e.g., rain).
- Light source definitions target a specific map in a game/WAD.
- Model definitions target a certain type of object in specific states.
- XG effects need to target certain lines and/or sectors (done via various XG references).

In other words, "scoping" is a universal need in the engine. There should be a uniform way to handle this a unified, powerful manner using a syntax that is consistent in all use cases.

See also: DED 2.0 and Resource URIs proposals

Subtasks:

Feature # 1621: Evaluation of runtime conditions	**Closed**

Related issues:

Related to Feature #1264: Conditional decorations	**New**	2003-08-12
Related to Feature #1244: Scripting in model definitions (e.g., dependent on ...	**Closed**	2003-07-20
Related to Feature #1616: Selector for sprites	**New**	2013-10-21
Related to Feature #1618: Decorations/effects for game events (power up, dama...	**New**	2013-10-21
Related to Feature #1290: Session-only cvars	**New**	2003-09-23
Related to Feature #1300: Differentiating variants of monster attacks	**Closed**	2003-10-05
Related to Feature #1305: Particle generator flag: instantly kill generator	**New**	2003-10-06
Related to Feature #1620: XG 2.0	**Progressed**	2010-04-20
Related to Feature #1374: XG refs: logical NOT	**New**	2005-04-01
Related to Feature #1376: Externally spawned mobjs	**New**	2005-04-02
Related to Feature #1394: Consistent map scoping in definitions	**New**	2005-11-06
Related to Feature #1489: Separate decor definitions for different plane types	**New**	2009-04-16
Related to Feature #1539: Armor, powerups (object status) controls 3D model r...	**Progressed**	2011-06-18
Related to Feature #1555: Add dynamic lights without having to alter the mob def	**Rejected**	2012-03-06
Related to Bug #346: Overriding Map Info in addons (level par time; jdep)	**Closed**	2006-08-28
Related to Bug #251: [Doom] Nightmare monsters sometimes not fast	**Progressed**	2005-08-23
Related to Feature #2241: Configure games via Home UI (advanced users, cf. au...	**Progressed**	2017-04-05

History

#1 - 2013-10-21 07:46 - skyjake

- Assignee set to Deng Team

#2 - 2013-10-21 08:40 - skyjake

In practice, libdeng2's Record could play a major role in resolving these scopes. Similarly to how Doomsday Script namespaces and a process's stack works, we could set up a stack of records where variables are looked for. More specific scopes, like a map-specific record, would then override more global ones (like Config).

This could be generalized to cvars, too, when they are stored in records. For instance, the Doom-specific Config.game.doom would override the global Config.game.

#3 - 2013-10-21 08:46 - skyjake

- Tracker changed from Bug to Feature

#4 - 2013-10-22 13:16 - skyjake

- Description updated

#5 - 2013-10-22 13:16 - skyjake

- Tags changed from Definitions, Scripting to Definitions, Scripting, ACS

#6 - 2016-12-01 20:17 - skyjake

- Target version set to Modding

#7 - 2017-04-05 18:56 - skyjake

- Related to Feature #2241: Configure games via Home UI (advanced users, cf. autoexec.cfg) added