

Finale Lumps formal specification 0.99.1

There was no way of altering a finale (art screen, bunny scroller, cast roll call) in the original Doom II outside of lump replacement and DeHackEd modification of actor names. This specification documents a data format that allows customisation of the cast call screen.

Scope of features

This specification has been written to handle exactly what is required every finale screen in the original Doom and Doom II releases, plus whatever was required for this release. Additional features were deemed outside of the scope of this revision of the specification.

JSON lump

This specification uses the JSON Lump 1.0.0 formal specification as the root of its data storage, with a type of **finale** and a version of **1.0.0**.

Minimum engine featureset

This specification applies to any **limit-removing** featureset or greater. While it is optional for other valid featuresets, it is a requirement of the **ID24** featureset.

UMAPINFO additions

UMAPINFO previously provided **endpic**, **endbunny**, and **endcast** fields to define that the episode should end and proceed to the finale screens. Rather than overload the meaning of this field, an additional field has been added:

Name	Type	Description
endfinale	string	A cast call lump to be used for the cast call screen

endfinale is considered authoritative and the existing finale fields are ignored when **endfinale** is set. Ports that do not implement this specification are expected to ignore **endfinale**.

Basic setup

There are three types of finales that you can define:

- Art screen
- Bunny scroller
- Cast roll call

There are two basic lumps that you must provide to form the basis of any finale:

- The background image
- The music lump to play

How these values are interpreted depends on the kind of finale that has been defined.

Additionally, you can specify if the game should continue on to the next map defined either via the default gameflow or through any of the supported map info formats when the user advances beyond this finale.

Art screen

The music lump defined will loop.

The background image must take the form of a patch with a minimum width of 320 texels and a height of exactly 200 texels. This patch will be centred on screen and rendered in a 320x200 virtual environment.

Bunny scroller

The music lump defined will play once.

The background image must take the form of a patch with a minimum width of 320 texels and a height of exactly 200 texels. This will be stitched together with another image patch as defined and form the rightmost part of the image, which must also have a minimum width of 320 texels and a height of exactly 200 texels.

This complete image will then scroll from right to left, with the middle 640x400 texels being the focus in a 320x200 virtual environment.

Cast roll call

The music lump defined will loop.

The background image must take the form of a patch with a minimum width of 320 texels and a height of exactly 200 texels. This patch will be centred on screen and rendered in a 320x200 virtual environment.

If set, advancing to the next map occurs after the player interacts with the final cast member and its death frames complete.

A cast member requires the following data to operate:

- A DeHackEd mnemonic to resolve as the cast member's name.
- An alert sound.
- A separate set of frames representing its alive and dead states.

Each frame lets you define a tranmap, a translation, a duration, a sound to play on that frame, and whether it should be rendered flipped along the horizontal axis.

Data type definitions

root

Name	Type	Description
type	enum	Allows the following values: <ul style="list-style-type: none">• 0 - art screen• 1 - bunny scroller• 2 - cast roll call
music	string	Lump name of music to be looped while this background lump is displayed.
background	string	Lump name of the patch to be rendered to the screen.

donextmap	bool	Allows the game to progress to the next map if set to true.
bunny	bunny	Information for the bunny scroller. Can be null; if type is not 1 and bunny is not null then it is considered an error condition.
castrollcall	castrollcall	Information for the cast roll call. Can be null; if type is not 2 and castrollcall is not null then it is considered an error condition.

bunny

Name	Type	Description
stitchimage	string	Lump name of the patch to be stitched together with the background image from root
overlay	integer	The graphic to overlay after the scroller has finished. Can use a C-style integer mask for string printing.
overlaycount	integer	The number of overlay images to animate.
overlaysound	integer	The sound to play as each overlay image animates.
overlayx	integer	The X position of the overlay image.
overlayy	integer	The Y position of the overlay image.

castrollcall

Name	Type	Description
castmembers	array of castmember	Lump name of the patch to be stitched together with the background image from root