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NAME

dgn\_comp - NetHack dungeon compiler

SYNOPSIS

dgn\_comp [ file ]

If no arguments are given, it reads standard input.

DESCRIPTION

Dgn\_comp is a dungeon compiler for NetHack version 3.2 and

higher. It takes a description file as an argument and pro-

duces a dungeon "script" that is to be loaded by NetHack at

runtime.

The purpose of this tool is to provide NetHack administra-

tors and implementors with a convenient way to create a cus-

tom dungeon for the game, without having to recompile the

entire world.

GRAMMAR

DUNGEON: name bonesmarker ( base , rand ) [ %age ]

where name is the dungeon name, bonesmarker is a letter for

marking bones files, ( base , rand ) is the number of lev-

els, and %age is its percentage chance of being generated

(if absent, 100% chance).

DESCRIPTION: tag

where tag is currently one of HELLISH, MAZELIKE, or ROGUE-

LIKE.

ALIGNMENT | LEVALIGN: [ lawful | neutral | chaotic |

unaligned ]

gives the alignment of the dungeon/level (default is

unaligned).

ENTRY: level

the dungeon entry point. The dungeon connection attaches at

this level of the given dungeon. If the value of level is

negative, the entry level is calculated from the bottom of

the dungeon, with -1 being the last level. If this line is

not present in a dungeon description, the entry level

defaults to 1.

PROTOFILE: name

the prototypical name for dungeon level files in this

dungeon. For example, the PROTOFILE name for the dungeon

Vlad's Tower is tower.

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LEVEL: name bonesmarker @ ( base , rand ) [ %age ]

where name is the level name, bonesmarker is a letter for

marking bones files, ( base , rand ) is the location and

%age is the generation percentage, as above.

RNDLEVEL: name bonesmarker @ ( base , rand ) [ %age ]

rndlevs

where name is the level name, bonesmarker is a letter for

marking bones files, ( base , rand ) is the location, %age

is the generation percentage, as above, and rndlevs is the

number of similar levels available to choose from.

CHAINLEVEL: name bonesmarker prev\_name + ( base , rand ) [

%age ]

where name is the level name, bonesmarker is a letter for

marking bones files, prev\_name is the name of a level

defined previously, ( base , rand ) is the offset from the

level being chained from, and %age is the generation percen-

tage.

RNDCHAINLEVEL: name bonesmarker prev\_name + ( base , rand )

[ %age ] rndlevs

where name is the level name, bonesmarker is a letter for

marking bones files, prev\_name is the name of a level

defined previously, ( base , rand ) is the offset from the

level being chained from, %age is the generation percentage,

and rndlevs is the number of similar levels available to

choose from.

LEVELDESC: type

where type is the level type, (see DESCRIPTION, above). The

type is used to override any pre-set value used to describe

the entire dungeon, for this level only.

BRANCH: name @ ( base , rand ) [ stair | no\_up | no\_down |

portal ] [ up | down ]

where name is the name of the dungeon to branch to, and (

base , rand ) is the location of the branch. The last two

optional arguments are the branch type and branch direction.

The type of a branch can be a two-way stair connection, a

one-way stair connection, or a magic portal. A one-way

stair is described by the types no\_up and no\_down which

specify which stair direction is missing. The default

branch type is stair. The direction for a stair can be

either up or down; direction is not applicable to portals.

The default direction is down.

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CHAINBRANCH: name prev\_name + ( base , rand ) [ stair |

no\_up | no\_down | portal ] [ up | down ]

where name is the name of the dungeon to branch to,

prev\_name is the name of a previously defined level and (

base , rand ) is the offset from the level being chained

from. The optional branch type and direction are the same

as described above.

GENERIC RULES

Each dungeon must have a unique bonesmarker , and each spe-

cial level must have a bonesmarker unique within its dungeon

(letters may be reused in different dungeons). If the

bonesmarker has the special value "none", no bones files

will be created for that level or dungeon.

The value base may be in the range of 1 to MAXLEVEL (as

defined in global.h ).

The value rand may be in the range of -1 to MAXLEVEL.

If rand is -1 it will be replaced with the value

(num\_dunlevs(dungeon) - base) during the load process (ie.

from here to the end of the dungeon).

If rand is 0 the level is located absolutely at base.

Branches don't have a probability. Dungeons do. If a

dungeon fails to be generated during load, all its levels

and branches are skipped.

No level or branch may be chained from a level with a per-

centage generation probability. This is to prevent non-

resolution during the load. In addition, no branch may be

made from a dungeon with a percentage generation probability

for the same reason.

As a general rule using the dungeon compiler:

If a dungeon has a protofile name associated with it (eg.

tower) that file will be used.

If a special level is present, it will override the above

rule and the appropriate file will be loaded.

If neither of the above are present, the standard generator

will take over and make a "normal" level.

A level alignment, if present, will override the alignment

of the dungeon that it exists within.

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EXAMPLE

Here is the current syntax of the dungeon compiler's

"language":

#

# The dungeon description file for the "standard" original

# 3.0 NetHack.

#

DUNGEON: "The Dungeons of Doom" "D" (25, 5)

LEVEL: "rogue" "none" @ (15, 4)

LEVEL: "oracle" "none" @ (5, 7)

LEVEL: "bigroom" "B" @ (12, 3) 15

LEVEL: "medusa" "none" @ (20, 5)

CHAINLEVEL: "castle" "medusa" + (1, 4)

CHAINBRANCH: "Hell" "castle" + (0, 0) no\_down

BRANCH: "The Astral Plane" @ (1, 0) no\_down up

DUNGEON: "Hell" "H" (25, 5)

DESCRIPTION: mazelike

DESCRIPTION: hellish

BRANCH: "Vlad's Tower" @ (13, 5) up

LEVEL: "wizard" "none" @ (15, 10)

LEVEL: "fakewiz" "A" @ (5, 5)

LEVEL: "fakewiz" "B" @ (10, 5)

LEVEL: "fakewiz" "C" @ (15, 5)

LEVEL: "fakewiz" "D" @ (20, 5)

LEVEL: "fakewiz" "E" @ (25, 5)

DUNGEON: "Vlad's Tower" "T" (3, 0)

PROTOFILE: "tower"

DESCRIPTION: mazelike

ENTRY: -1

DUNGEON: "The Astral Plane" "A" (1, 0)

DESCRIPTION: mazelike

PROTOFILE: "endgame"

NOTES:

Lines beginning with '#' are considered comments.

A special level must be explicitly aligned. The alignment

of the dungeon it is in only applies to non-special levels

within that dungeon.

AUTHOR

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SEE ALSO

lev\_comp(6), nethack(6)

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BUGS

Probably infinite.

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