

mubu.granular~

MuBu granular synthesis

Description

MuBu granular synthesis module based on the *ZsaZsa* overlap-add synthesis engine. The module processes a sound stored in a [buffer~](#) or [polybuffer~](#) of the same name as the referred MuBu container.

Arguments

<i>Name</i>	<i>Type</i>	<i>Opt</i>	<i>Description</i>
mubu name	symbol		Name of the referred MuBu container and audio buffer.

Messages

position	grain position [float]		Sets grain source position in msec.
refer	name [symbol]		Sets the referred MuBu container and audio buffer.

Attributes

<i>Name</i>	<i>Type</i>	<i>g/s</i>	<i>Description</i>
advance	float		Scheduling advance of the synthesis engine (should be kept to 0 here).
attack	float		Sets the grain attack time in msec or (values < 0) as factor of the segment duration.
bufferindex	int		Sets current buffer by index.
duration	float		Sets grain duration in msec.
durationvar	float		Sets the amount of random variaion of the grain duration in msec or (values < 0) as factor of the duration.
level	float		Sets the grain level in dB.
levelvar	float		Sets the amount of random variation of the grain level in dB.
maxduration	float		Sets the maximum grain duration.
mubuname	symbol		Sets the referred MuBu container (and audio buffer) by name.
period	float		Sets the grain period in msec.
periodvar	float		Sets the amount of random variaion of the grain period in msec or (values < 0) as factor of the period.
positionvar	float		Sets the amount of random variation of the grain source position.
release	float		Sets the grain release time in msec or (values < 0) as factor of the segment duration.
resampling	float		Sets the amount of resampling in cent.
resamplingvar	float		Sets the amount of random variation of resampling in cent.
spatialmode	int		Sets the spatial segment distribution mode.

The following modes are provided:

- direct
- gains

direct

In direct mode, segment channels are output from a given audio output.

For multi-channel sources, the segment channels are distributed to successive audio outputs starting from the the given channel.

gains

In **gains** mode, a single segment channel (by default the first channel of a multi-channel segment) is distributed to all audio outputs applying a linear gain to each output.

spatialparams	atom	Sets the spatial segment distribution parameters regarding the current spatial distribution mode.
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The following arguments are required for the different distribution modes:

- **direct** – (base) channel [int] (def: 0)
- **gains** – a linear gain for each output [list] (def: 0)

window	symbol	Sets the segment synthesis window function.
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The following window functions are available:

- **trapezoid** – trapezoid window
- **cosine** – cosine or *hann* window (default)

[Information for box attributes common to all objects](#)

Examples

See Also

<i>Name</i>	<i>Description</i>
mubu	MuBu, multi-buffer container for sound description and motion capture data
mubu.concat~	MuBu concatenative synthesis