

SuperVP for Max

Max Reference Pages

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supervp.trans~

SuperVP input stream processing module

Description

SuperVP is an extended phase vocoder engine providing high-quality temporal and spectral sound transformations as well as cross-synthesis. The module [supervp.trans~](#) allows for directly applying spectral transformations to an incoming sound stream.

Arguments

Name	Type	Opt	Description
channels	int	opt	Number of audio channels (default: 1)
window size	int	opt	window size (default: 1024)
frequency oversampling	int	opt	Frequency oversampling, STFT size = window size * 2 ^ fftover (default: 0)
window oversampling	float	opt	Oversampling, STFT hop size = window size / oversamp (default: 4)

Messages

getchannels		Output number of channels (channels <int: channels>)
getwindow size		Output window size (window size <int: window size>)
getfft over		Output frequency oversampling (fft over <int: frequency oversampling>)
getoversamp		Output oversampling (oversamp <int: oversampling>)
reset		Empty internal buffers
getlatency		Output i/o latency in ms (latency <float: latency>)
gettransients		Output transient preservation (transients <'on' 'off': enabled>)
getshapeinv		Output wave form preservation (shapeinv <'on' 'off': enabled>)
getstereopres		Output stereo preservation (stereopres <'on' 'off': enabled>)
gettranspose		Output transposition (transpose <float: transposition in cent> or <'off': disabled>)
gettransmode		Output transposition mode (transmode <'time' 'auto' 'freq': mode>)
getmintrans		Output minimum transposition (mintrans <float: transposition in cent>)
getmaxtrans		Output maximum transposition (maxtrans <'on' 'off': enabled>)
getenvpres		Output envelope preservation (envpres <'on' 'off': enabled>)
getenvtrans		Output envelope transposition (envtrans <float: transposition in cent> or <'off': disabled>)
getenvscale		Output envelope scaling (envscale <list: timbre scaling, mean scaling> or <'off': disabled>)
getenvmode		Output envelope estimation mode (envmode <'trueenv' 'lpc': mode>)
getmaxfreq		Output maxfreq maximum fo in Hz for spectral envelope estimation in true envelope mode (maxfreq <float: freq>)
getlpcorder		Output maximum LPC order for spectral envelope estimation in LPC mode (lpcorder <int: LPC order>)
getremix		Output sinusoids/noise/transients remix (remix <list: sinusoids, noise, transients, relax time, noise error> or <'off': disabled>)
getsinmode		Output sinusoids remix mode (sinmode <'vocoder' 'additive': mode>)

Attributes

Name	Type	g/s	Description
window size	long		Window Size

fftover	long	Frequency Oversampling
oversamp	float64	Oversampling Factor
transients	long	Enable Transient Preservation
shapeinv	long	Enable Wave Form Preservation
stereopres	long	Enable Stereo Preservation
enable-transpose	long	Enable Transposition
transpose	float64	Transposition
transmode	symbol	Transposition Mode
mintrans	float64	Minimum Transposition
maxfreq	float64	True Envelope Maximum Frequency
maxtrans	float64	Maximum Transposition
envpres	long	Enable Envelope Preservation
enable-envtrans	long	Enable Envelope Transposition
envtrans	float64	Envelope Transposition
enable-envscale	long	Enable Envelope Transposition
envscale	float64	Envelope Scaling Factor
envmode	symbol	Spectral Envelope Mode
lpcorder	long	LPC Order
enable-remix	long	Enable Remixing
remix	float64	Remixing Parameters
sinmode	symbol	Sinusoids Remix Mode

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

Examples

See Also

<i>Name</i>	<i>Description</i>
supervp.play~	SuperVP player module
supervp.scrub~	SuperVP buffer transformation module
supervp.ring~	SuperVP ring-buffer processing module
supervp.cross~	SuperVP generalized cross-synthesis module
supervp.sourcefilter~	SuperVP source-filter cross-synthesis module

supervp.ring~

SuperVP ring-buffer processing module

Description

SuperVP is an extended phase vocoder engine providing high-quality temporal and spectral sound transformations as well as cross-synthesis. The module [supervp.ring~](#) allows for continuously transforming an incoming sound stream using an internal ring buffer. The delay time can be continuously controlled by an input signal.

Arguments

Name	Type	Opt	Description
max delay	float	opt	Ringbuffer size and maximum delay in ms
channels	int	opt	Number of audio channels (default: 1)
window size	int	opt	window size (default: 1024)
frequency oversampling	int	opt	Frequency oversampling, STFT size = window size * 2 ^ fftover (default: 0)
window oversampling	float	opt	Oversampling, STFT hop size = window size / oversamp (default: 4)

Messages

getchannels		Output number of channels (channels <int: channels>)
getwindow size		Output window size (window size <int: window size>)
getfft over		Output frequency oversampling (fft over <int: frequency oversampling>)
getoversamp		Output oversampling (oversamp <int: oversampling>)
reset		Empty internal buffers
getlatency		Output i/o latency in ms (latency <float: latency>)
gettransients		Output transient preservation (transients <'on' 'off': enabled>)
getshapeinv		Output wave form preservation (shapeinv <'on' 'off': enabled>)
getstereopres		Output stereo preservation (stereopres <'on' 'off': enabled>)
gettranspose		Output transposition (transpose <float: transposition in cent> or <'off': disabled>)
gettransmode		Output transposition mode (transmode <'time' 'auto' 'freq': mode>)
getmintrans		Output minimum transposition (mintrans <float: transposition in cent>)
getmaxtrans		Output maximum transposition (maxtrans <'on' 'off': enabled>)
getenvpres		Output envelope preservation (envpres <'on' 'off': enabled>)
getenvtrans		Output envelope transposition (envtrans <float: transposition in cent> or <'off': disabled>)
getenvscale		Output envelope scaling (envscale <list: timbre scaling, mean scaling> or <'off': disabled>)
getenvmode		Output envelope estimation mode (envmode <'trueenv' 'lpc': mode>)
getmaxfreq		Output maxfreq maximum fo in Hz for spectral envelope estimation in true envelope mode (maxfreq <float: freq>)
getlpcorder		Output maximum LPC order for spectral envelope estimation in LPC mode (lpcorder <int: LPC order>)
getremix		Output sinusoids/noise/transients remix (remix <list: sinusoids, noise, transients, relax time, noise error> or <'off': disabled>)
getsinmode		Output sinusoids remix mode (sinmode <'vocoder' 'additive': mode>)
copy	buffer name [symbol]	copy internal ring buffer to given buffer~

Attributes

<i>Name</i>	<i>Type</i>	<i>g/s</i>	<i>Description</i>
windowsize	long		Window Size
fftover	long		Frequency Oversampling
oversamp	float64		Oversampling Factor
transients	long		Enable Transient Preservation
shapeinv	long		Enable Wave Form Preservation
stereopres	long		Enable Stereo Preservation
enable-transpose	long		Enable Transposition
transpose	float64		Transposition
transmode	symbol		Transposition Mode
mintrans	float64		Minimum Transposition
maxtrans	float64		Maximum Transposition
envpres	long		Enable Envelope Preservation
enable-envtrans	long		Enable Envelope Transposition
envtrans	float64		Envelope Transposition
enable-envscale	long		Enable Envelope Transposition
envscale	float64		Envelope Scaling Factor
envmode	symbol		Spectral Envelope Mode
maxfreq	float64		True Envelope Maximum Frequency
lpcorder	long		LPC Order
enable-remix	long		Enable Remixing
sinmode	symbol		Sinusoids Remix Mode
remix	float64		Remixing Parameters
play	long		Enable Playing
record	long		Enable Recording
scrub	long		Scrub Position Mode

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

Examples

See Also

<i>Name</i>	<i>Description</i>
supervp.play~	SuperVP player module
supervp.scrub~	SuperVP buffer transformation module
supervp.trans~	SuperVP input stream processing module
supervp.cross~	SuperVP generalized cross-synthesis module
supervp.sourcefilter~	SuperVP source-filter cross-synthesis module

supervp.scrub~

SuperVP buffer transformation module

Description

SuperVP is an extended phase vocoder engine providing high-quality temporal and spectral sound transformations as well as cross-synthesis. The module [supervp.scrub~](#) allows for continuously playing and transforming a sound stream stored in a [buffer~](#). The playing position is controlled by an input signal.

Arguments

Name	Type	Opt	Description
buffer name	symbol	opt	Name of buffer~
channels	int	opt	Number of audio channels (default: 1)
window size	int	opt	window size (default: 1024)
frequency oversampling	int	opt	Frequency oversampling, STFT size = window size * 2 ^ fftover (default: 0)
window oversampling	float	opt	Oversampling, STFT hop size = window size / oversamp (default: 4)

Messages

getchannels		Output number of channels (channels <int: channels>)
getwindow size		Output window size (window size <int: window size>)
getfft over		Output frequency oversampling (fft over <int: frequency oversampling>)
getoversamp		Output oversampling (oversamp <int: oversampling>)
reset		Empty internal buffers
getlatency		Output i/o latency in ms (latency <float: latency>)
set	buffer name [symbol]	Set buffer~
gettransients		Output transient preservation (transients <'on' 'off': enabled>)
getshapeinv		Output wave form preservation (shapeinv <'on' 'off': enabled>)
getstereopres		Output stereo preservation (stereopres <'on' 'off': enabled>)
gettranspose		Output transposition (transpose <float: transposition in cent> or <'off': disabled>)
gettransmode		Output transposition mode (transmode <'time' 'auto' 'freq': mode>)
getmintrans		Output minimum transposition (mintrans <float: transposition in cent>)
getmaxtrans		Output maximum transposition (maxtrans <'on' 'off': enabled>)
getenvpres		Output envelope preservation (envpres <'on' 'off': enabled>)
getenvtrans		Output envelope transposition (envtrans <float: transposition in cent> or <'off': disabled>)
getenvscale		Output envelope scaling (envscale <list: timbre scaling, mean scaling> or <'off': disabled>)
getenvmode		Output envelope estimation mode (envmode <'trueenv' 'lpc': mode>)
getmaxfreq		Output maxfreq maximum fo in Hz for spectral envelope estimation in true envelope mode (maxfreq <float: freq>)
getlpcorder		Output maximum LPC order for spectral envelope estimation in LPC mode (lpcorder <int: LPC order>)
getremix		Output sinusoids/noise/transients remix (remix <list: sinusoids, noise, transients, relax time, noise error> or <'off': disabled>)

getsinmode	Output sinusoids remix mode (sinmode <'vocoder' 'additive': mode>)
start	Start playing
stop	Stop playing

Attributes

<i>Name</i>	<i>Type</i>	<i>g/s</i>	<i>Description</i>
windowsize	long		Window Size
fftover	long		Frequency Oversampling
oversamp	float64		Oversampling Factor
transients	long		Enable Transient Preservation
shapeinv	long		Enable Wave Form Preservation
stereopres	long		Enable Stereo Preservation
enable-transpose	long		Enable Transposition
transpose	float64		Transposition
transmode	symbol		Transposition Mode
mintrans	float64		Minimum Transposition
maxtrans	float64		Maximum Transposition
envpres	long		Enable Envelope Preservation
envtrans	float64		Envelope Transposition
enable-envtrans	long		Enable Envelope Transposition
enable-envscale	long		Enable Envelope Transposition
envscale	float64		Envelope Scaling Factor
envmode	symbol		Spectral Envelope Mode
maxfreq	float64		True Envelope Maximum Frequency
lpcorder	long		LPC Order
enable-remix	long		Enable Remixing
sinmode	symbol		Sinusoids Remix Mode
remix	float64		Remixing Parameters
play	long		Enable Playing
cyclic	long		Cyclic Source Buffer

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

Examples

See Also

<i>Name</i>	<i>Description</i>
supervp.play~	SuperVP player module
supervp.ring~	SuperVP ring-buffer processing module
supervp.trans~	SuperVP input stream processing module
supervp.cross~	SuperVP generalized cross-synthesis module
supervp.sourcefilter~	SuperVP source-filter cross-synthesis module

supervp.play~

SuperVP player module

Description

SuperVP is an extended phase vocoder engine providing high-quality temporal and spectral sound transformations as well as cross-synthesis. The module [supervp.play~](#) allows for playing and transforming segments of a sound stored in a buffer~.

Arguments

Name	Type	Opt	Description
buffer name	symbol	opt	Name of buffer~
channels	int	opt	Number of audio channels (default: 1)
window size	int	opt	window size (default: 1024)
frequency oversampling	int	opt	Frequency oversampling, STFT size = window size * 2 ^ fftover (default: 0)
window oversampling	float	opt	Oversampling, STFT hop size = window size / oversamp (default: 4)

Messages

getchannels		Output number of channels (channels <int: channels>)
getwindow size		Output window size (window size <int: window size>)
getfft over		Output frequency oversampling (fft over <int: frequency oversampling>)
getoversamp		Output oversampling (oversamp <int: oversampling>)
reset		Empty internal buffers
getlatency		Output i/o latency in ms (latency <float: latency>)
set	buffer name [symbol]	Set buffer~
gettransients		Output transient preservation (transients <'on' 'off': enabled>)
getshapeinv		Output wave form preservation (shapeinv <'on' 'off': enabled>)
getstereopres		Output stereo preservation (stereopres <'on' 'off': enabled>)
gettranspose		Output transposition (transpose <float: transposition in cent> or <'off': disabled>)
gettransmode		Output transposition mode (transmode <'time' 'auto' 'freq': mode>)
getmintrans		Output minimum transposition (mintrans <float: transposition in cent>)
getmaxtrans		Output maximum transposition (maxtrans <'on' 'off': enabled>)
getenvpres		Output envelope preservation (envpres <'on' 'off': enabled>)
getenvtrans		Output envelope transposition (envtrans <float: transposition in cent> or <'off': disabled>)
getenvscale		Output envelope scaling (envscale <list: timbre scaling, mean scaling> or <'off': disabled>)
getenvmode		Output envelope estimation mode (envmode <'trueenv' 'lpc': mode>)
getmaxfreq		Output maxfreq maximum fo in Hz for spectral envelope estimation in true envelope mode (maxfreq <float: freq>)
getlpcorder		Output maximum LPC order for spectral envelope estimation in LPC mode (lpcorder <int: LPC order>)
getremix		Output sinusoids/noise/transients remix (remix <list: sinusoids, noise, transients, relax time, noise error> or <'off': disabled>)

getsinmode		Output sinusoids remix mode (sinmode <'vocoder' 'additive'; mode>)
getstretch		Output time-stretching factor (stretch <float: time-stretching factor>)
position	position in ms [float]	Set (or jump to) position
getposition		Output current position in ms (position <float: position>)
start		Start playing
stop		Stop playing
loop	enable [bool]	Enable/disable loop
pause		Pause playing (restart with 'play')
play	begin [float] end [float] speed [float] loop [int]	Play a given segment in given speed (resets scheduled segments)
append	begin [float] end [float] speed [float] loop [int]	Append a segment to the list of scheduled segments
next		Jump to next scheduled segment
forget		Clear list of scheduled segments

Attributes

<i>Name</i>	<i>Type</i>	<i>g/s</i>	<i>Description</i>
windowsize	long		Window Size
fftover	long		Frequency Oversampling
oversamp	float64		Oversampling Factor
transients	long		Enable Transient Preservation
shapeinv	long		Enable Wave Form Preservation
stereopres	long		Enable Stereo Preservation
enable-transpose	long		Enable Transposition
transpose	float64		Transposition
transmode	symbol		Transposition Mode
mintrans	float64		Minimum Transposition
maxtrans	float64		Maximum Transposition
envpres	long		Enable Envelope Preservation
enable-envtrans	long		Enable Envelope Transposition
envtrans	float64		Envelope Transposition
enable-envscale	long		Enable Envelope Transposition
envscale	float64		Envelope Scaling Factor
envmode	symbol		Spectral Envelope Mode
maxfreq	float64		True Envelope Maximum Frequency
lpcorder	long		LPC Order
enable-remix	long		Enable Remixing
remix	float64		Remixing Parameters
sinmode	symbol		Sinusoids Remix Mode
stretch	float64		Time-Stretching Factor

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

Examples

See Also

<i>Name</i>	<i>Description</i>
supervp.scrub~	SuperVP buffer transformation module
supervp.ring~	SuperVP ring-buffer processing module
supervp.trans~	SuperVP input stream processing module
supervp.cross~	SuperVP generalized cross-synthesis module
supervp.sourcefilter~	SuperVP source-filter cross-synthesis module

supervp.sourcefilter~

SuperVP source-filter cross-synthesis module

Description

SuperVP is an extended phase vocoder engine providing high-quality temporal and spectral sound transformations as well as cross-synthesis. The module [supervp.sourcefilter~](#) performs source-filter cross-synthesis to two incoming sound streams, imprinting the spectral envelope of the 'filter' stream (right inlets) to the 'source' stream (left inlets).

Arguments

Name	Type	Opt	Description
channels	int	opt	Number of audio channels (default: 1)
window size	int	opt	window size (default: 1024)
frequency oversampling	int	opt	Frequency oversampling, STFT size = window size * 2 ^ fftover (default: 0)
window oversampling	float	opt	Oversampling, STFT hop size = window size / oversamp (default: 4)

Messages

getchannels			Output number of channels (channels <int: channels>)
getwindow size			Output window size (window size <int: window size>)
getfft over			Output frequency oversampling (fft over <int: frequency oversampling>)
getover samp			Output oversampling (oversamp <int: oversampling>)
reset			Empty internal buffers
getlatency			Output i/o latency in ms (latency <float: latency>)
getsource			Output source scaling factors (source <list: timbre scaling, mean scaling>)
getfilter			Output filter scaling factors (filter <list: timbre scaling, mean scaling>)
getenv mode			Output envelope estimation mode for source and filter (env mode <list: source mode, filter mode>)
getmax freq			Output maxfreq maximum fo in Hz for spectral envelope estimation in true envelope mode (maxfreq <list: source freq, filter freq>)
getlpc order			Output maximum LPC order for spectral envelope estimation in LPC mode (lpc order <list: source order, filter order>)

Attributes

Name	Type	g/s	Description
window size	long		Window Size
fft over	long		Frequency Oversampling
oversamp	float64		Oversampling Factor
source	float64		Source Scaling
filter	float64		Filter Scaling
env mode	symbol		Spectral Envelope Estimation Mode
max freq	float64		True Envelope Maximum Frequency
lpc order	long		LPC Order

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

Examples

See Also

<i>Name</i>	<i>Description</i>
supervp.play~	SuperVP player module
supervp.scrub~	SuperVP buffer transformation module
supervp.ring~	SuperVP ring-buffer processing module
supervp.trans~	SuperVP input stream processing module
supervp.cross~	SuperVP generalized cross-synthesis module

supervp.cross~

SuperVP generalized cross-synthesis module

Description

SuperVP is an extended phase vocoder engine providing high-quality temporal and spectral sound transformations as well as cross-synthesis. The module [supervp.cross~](#) performs generalized cross-synthesis to two incoming sound streams, mixing the amplitudes and phases of both streams in frequency domain.

Arguments

<i>Name</i>	<i>Type</i>	<i>Opt</i>	<i>Description</i>
channels	int	opt	Number of audio channels (default: 1)
window size	int	opt	window size (default: 1024)
frequency oversampling	int	opt	Frequency oversampling, STFT size = window size * 2 ^ fftover (default: 0)
window oversampling	float	opt	Oversampling, STFT hop size = window size / oversamp (default: 4)

Messages

getchannels	Output number of channels (channels <int: channels>)
getwindow size	Output window size (window size <int: window size>)
getfft over	Output frequency oversampling (fft over <int: frequency oversampling>)
getoversamp	Output oversampling (oversamp <int: oversampling>)
reset	Empty internal buffers
getlatency	Output i/o latency in ms (latency <float: latency>)
gettransients	Output transient preservation (transients <'on' 'off': enabled>)
getscaling	Output amplitude and frequency scaling factors (scaling <list: amp left, freq left, amp right, freq right>)
getqfactor	Output Q-factor (qfactor <float: Q-factor>)
getqexp	Output Q-exponent (qexp <float: Q-exponent>)
getphasesync	Output phase synchronisation threshold (phasesync <float: threshold>)

Attributes

<i>Name</i>	<i>Type</i>	<i>g/s</i>	<i>Description</i>
window size	long		Window Size
fft over	long		Frequency Oversampling
oversamp	float64		Oversampling Factor
transients	symbol		Transient Preservation
scaling	float64		Amplitude/Frequency Scaling
qfactor	float64		Q-Factor
qexp	float64		Q-Exponent
phasesync	float64		Phase Synchronisation Threshold

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

Examples

See Also

<i>Name</i>	<i>Description</i>
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<u>supervp.play~</u>	SuperVP player module
<u>supervp.scrub~</u>	SuperVP buffer transformation module
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