```
<CsoundSynthesizer>
; adapted from Andre Bartetzki's original cmask example
; see http://www.bartetzki.de/en/index.html
<CsOptions>
  -d -o dac
</CsOptions>

<CsInstruments>
sr     = 44100
ksmps  = 10
nchnls = 2

          instr 1
;p4 grain pointer (in seconds)
;p5 pan (0...1)


ipanl   table   1-p5 ,4,1
ipanr   table   p5 ,4,1

andx    line    p4,p3,p4+p3
asig    tablei  andx*sr,1

k1  oscil   30000,1/p3,2
asig    =   asig*k1

    outs    asig*ipanl, asig*ipanr

          endin
</CsInstruments>

<CsScore bin="gmask">
{
f1 0 65536 1 "axaxaxas.aif" 0 4 1
;= 1.4861 sec

f2 0 8193 19 1 1 270 1
f4 0 8192 9 .25 1 0
}

f 0 5

p1 const 1

p2 const .02
;p2 rnd uni mask  .005 .1 map 1

p3 const .04
;p3 range .04 .2

p4 seg [0 1.44 ipl 0]
;p4 seg [0 1.44 ipl -2]
;p4 range 0 1.44
;p4 rnd uni mask .002 .05 map 1
;accum wrap 0 1.4

p5 const .5
</CsScore>
</CsoundSynthesizer>

```

```
<CsoundSynthesizer>
; adapted from Andre Bartetzki's original cmask example
; see http://www.bartetzki.de/en/index.html
<CsOptions>
  -d -o dac
</CsOptions>

<CsInstruments>
sr     = 44100
ksmps  = 10
nchnls = 2

          instr 1
;p2 onset
;p3 duration
;p4 base frequency
;p5 fm index
;p6 pan (L=0, R=1)

kenv    expon       1,p3,0.01
kindx   expon       p5,p3,.4
a1  foscil  kenv*10000,p4,1,1.143,kindx,1
    outs        a1*(1-p6),a1*p6

          endin
</CsInstruments>

<CsScore bin="gmask">
{
f1 0 8193 10 1
}

f 0 20

p1 const 1

p2              ;decreasing density
rnd uni
mask [.03 .5 ipl 3] [.08 1 ipl 3] map 1
prec 2


p3              ;increasing duration
rnd uni
mask [.2 3 ipl 1] [.4 5 ipl 1]
prec 2


p4              ;narrowing frequency grid
rnd uni
mask [3000 90 ipl 1] [5000 150 ipl 1] map 1
quant [400 50] .95
prec 2

p5
rnd uni
mask [2 4] [4 7]
prec 2

p6 range 0 1
prec 2
</CsScore>
</CsoundSynthesizer>

```

```
<CsoundSynthesizer>
; adapted from Andre Bartetzki's original cmask example
; see http://www.bartetzki.de/en/index.html
<CsOptions>
  -d -o dac
</CsOptions>

<CsInstruments>
sr     = 44100
ksmps  = 10
nchnls = 2

garev   init    0

instr   1

;p4 transposition (1=normal)
;p5 table number (1...6)
;p6 pan (0...1)
;p7 dry/wet (0...1)

ipanl   table   1-p6 ,10,1
ipanr   table   p6 ,10,1

k1  expon   .5,p3,.01
a1  loscil  k1,p4,p5,1,0,0,2
a1  linen   a1,0,p3,.05

garev   = garev + a1*p7
a2  =   a1*ipanr
a1  =   a1*ipanl
    outs    a1*(1-p7*p7),a2*(1-p7*p7)

endin

instr 99

krev    expseg  .03,p3-5,4,5,4
kral    linseg  0,p3*.3,1.1,p3*.3,0,p3*.4,0
kral    = kral*kral

a1  alpass  garev, kral,.05
a2  alpass  garev, kral,.06
a1  = a1 * kral
a2  = a2 * kral
a1r reverb2 garev+a1,krev,.3
a2r reverb2 garev+a2,krev*1.2,.33
    outs    a1r+a1/2,a2r+a2/2

garev   =   0

endin
</CsInstruments>

<CsScore bin="gmask">
{
f1 0 0 -1 "door1.aif" 0 4 1
f2 0 0 -1 "door2.aif" 0 4 1
f3 0 0 -1 "door3.aif" 0 4 1
f4 0 0 -1 "door4.aif" 0 4 1
f5 0 0 -1 "door5.aif" 0 4 1
f6 0 0 -1 "door6.aif" 0 4 1

f10 0 8192 9 .25 1 0
i99 0 27
}

f 0 20

p1 const 1

p2 rnd beta .05 .1
mask (12 .01 18 .2) (12 .1 18 1)

p3 seg [.3 1.2 ipl 0.4]

p4 rnd uni mask [3 .8 ipl .4] [5 1.2 ipl .4]

p5 range 1 6
prec 0

p6 range 0 1

p7 seg (2 0 18 .5 ipl 1)
</CsScore>
</CsoundSynthesizer>
```

```
<CsoundSynthesizer>
; adapted from Andre Bartetzki's original cmask example
; see http://www.bartetzki.de/en/index.html
<CsOptions>
  -d -o dac
</CsOptions>

<CsInstruments>
sr     = 44100
ksmps  = 10
nchnls = 2

instr 1     ;mallet ?

;p2 onset
;p3 duration
;p4 pitch (0-4)
;p5 octav (7-9)

kenv    oscil       1,1/p3,2
kindx   pow     kenv,6,.5
iton    table       p4,5
a1  foscil  kenv*8000,cpspch(p5+iton),1,4,kindx,1
    outs        a1*(1-p4/4),a1*p4/4

endin

instr 2     ;metal plate

;p2 onset
;p3 duration
;p4 pitch (0/1)

kindx   expon       1,p3,.001
a1  rand        100
a2  oscil       10000*kindx,3000+1500*p4+a1*(1+kindx),1

    outs        a2*p4,a2*(1-p4)
endin

instr 3

;p2 onset
;p3 duration
;p4 pitch (0-3)

kenv    oscil       1,1/p3,3
kindx   oscil       2,1/p3,4
a1  foscil  kenv*11000,100+p4*20,1,1.4,kindx,1
    outs        a1,a1

endin
</CsInstruments>

<CsScore bin="gmask">
{
f1 0 8193 10 1
f2 0 8193 5 1 8193 .003
f3 0 8193 8 .8 1000 1 2192  .3 5000 0
f4 0 8193 5 1 1193 0.02 7000 .01
f5 0 8 -2 0 .02 .04 .07 .09
}


f 0 20

p1 const 1

p2
rnd exp 2
mask .1 .5 map 1
quant .1 .96
prec 4

p3
range .4 .5
prec 2

p4 range 0 4

p5 range 7 9



f 0 20

```

```
p1 const 2

p2 rnd rlin -1
mask .3 1 map 1
quant .3 .96
prec 2


p3 range .4 .5
prec 2

p4 range 0 1


f 0 20

p1 const 3

p2 rnd beta .2 .5
mask .1 1 map 1
quant .2 .9
prec 2

p3 range .8 1.5
prec 2

p4 range 0 3
</CsScore>
</CsoundSynthesizer>


```

```
<CsoundSynthesizer>
; adapted from Andre Bartetzki's original cmask example
; see http://www.bartetzki.de/en/index.html
<CsOptions>
  -d -o dac
</CsOptions>

<CsInstruments>
sr     = 44100
ksmps  = 10
nchnls = 1

instr 1

;p2 onset
;p3 duration
;p4 speed factor (=transposition)

kenv    oscil       30000,1/p3,2
aindx   line        p2,p3,p2+p3*p4
asig    tablei  aindx*sr,1

    out     asig*kenv

endin
</CsInstruments>

<CsScore bin="gmask">
{
f1 0 131072 1 "schwermt.aif" 0 4 1  ;
f2 0 8193 8 0 4096 1 4096 0
}

f 0 2.2

p1 const 1

p2 const 0.01 ;constant grain interonset 10 ms

p3 const 0.02 ;constant grain duration 20 ms

p4 const 1.5  ;speed*1.5 = fifth higher
</CsScore>
</CsoundSynthesizer>

```

```
<CsoundSynthesizer>
; adapted from Andre Bartetzki's original cmask example
; see http://www.bartetzki.de/en/index.html
<CsOptions>
  -d -o dac
</CsOptions>

<CsInstruments>
sr     = 44100
ksmps  = 10
nchnls = 1

instr 1

;p2 onset
;p3 duration
;p4 speed factor (=transposition)

kenv    oscil       30000,1/p3,2
aindx   line        p2,p3,p2+p3*p4
asig    tablei  aindx*sr,1

    out     asig*kenv

endin
</CsInstruments>

<CsScore bin="gmask">
{
f1 0 131072 1 "schwermt.aif" 0 4 1
f2 0 8193 8 0 4096 1 4096 0
}

; for use with pitchshift.orc !

f 0 2.2

p1 const 1

p2 const 0.01   ;constant grain interonset 10 ms

p3 const 0.02   ;constant grain duration 20 ms

p4 seg [1 2.2 ipl .3]
            ;acceleration = glissando
</CsScore>
</CsoundSynthesizer>


```

```
<CsoundSynthesizer>
; adapted from Andre Bartetzki's original cmask example
; see http://www.bartetzki.de/en/index.html
<CsOptions>
  -d -o dac
</CsOptions>

<CsInstruments>
sr     = 44100
ksmps  = 10
nchnls = 1

instr 1

;p2 onset
;p3 duration
;p4 speed factor (=transposition)

kenv    oscil       30000,1/p3,2
aindx   line        p2,p3,p2+p3*p4
asig    tablei  aindx*sr,1

    out     asig*kenv

endin
</CsInstruments>

<CsScore bin="gmask">
{
f1 0 131072 1 "schwermt.aif" 0 4 1  ;43520
f2 0 8193 8 0 4096 1 4096 0
}

; for use with pitchshift.orc !

f 0 2.2

p1 const 1

p2 const .02    ;constant grain interonset 20 ms

p3 const .04    ;constant grain duration 40 ms

p4 range .5 2   ;random intervall
quant .5 1      ;only harmonics
prec 3
</CsScore>
</CsoundSynthesizer>


```

```
<CsoundSynthesizer>
; adapted from Andre Bartetzki's original cmask example
; see http://www.bartetzki.de/en/index.html
<CsOptions>
  -d -o dac
</CsOptions>

<CsInstruments>
sr     = 44100
ksmps  = 10
nchnls = 1

instr 1

;p2 onset
;p3 duration
;p4 speed factor (=transposition)

kenv    oscil       30000,1/p3,2
aindx   line        p2,p3,p2+p3*p4
asig    tablei  aindx*sr,1

    out     asig*kenv

endin
</CsInstruments>

<CsScore bin="gmask">
{
f1 0 131072 1 "schwermt.aif" 0 4 1  ;43520
f2 0 8193 8 0 4096 1 4096 0
}

; for use with pitchshift.orc !

f 0 2.2

p1 const 1

p2 const .02    ;constant grain interonset 20 ms

p3 const .04    ;constant grain duration 40 ms

p4 range .75 1.5    ;random intervall
prec 2
</CsScore>
</CsoundSynthesizer>


```

```
<CsoundSynthesizer>
; adapted from Andre Bartetzki's original cmask example
; see http://www.bartetzki.de/en/index.html
<CsOptions>
  -d -o dac
</CsOptions>

<CsInstruments>
sr     = 44100
ksmps  = 10
nchnls = 1

instr 1

;p2 onset
;p3 duration
;p4 sound file pointer
;p5 speed factor (=transposition)

kenv    oscil       20000,1/p3,4
aindx   line        p4,p3,p4+p3*p5
asig    tablei  aindx*sr,1

    out     asig*kenv
endin
</CsInstruments>

<CsScore bin="gmask">
{
f1 0 131072 1 "schwermt.aif" 0 4 1  ;95962
f4 0 8193 8 0 4096 1 4096 0
}

f 0 11

p1 const 1

p2 const 0.01   ;constant grain interonset 10 ms

p3 const .02    ;constant grain duration 20 ms

p4 const .002   ;1/5 tempo
accum on
prec 3

p5 const 1.5    ;fifth higher
</CsScore>
</CsoundSynthesizer>

```

```
<CsoundSynthesizer>
; adapted from Andre Bartetzki's original cmask example
; see http://www.bartetzki.de/en/index.html
<CsOptions>
  -d -o dac
</CsOptions>

<CsInstruments>
sr     = 44100
ksmps  = 10
nchnls = 1

instr 1

;p2 onset
;p3 duration
;p4 sound file pointer
;p5 speed factor (=transposition)

kenv    oscil       20000,1/p3,4
aindx   line        p4,p3,p4+p3*p5
asig    tablei  aindx*sr,1

    out     asig*kenv
endin
</CsInstruments>

<CsScore bin="gmask">
{
f1 0 131072 1 "schwermt.aif" 0 4 1
f4 0 8193 8 0 4096 1 4096 0
}

;for use with pitch+time.orc !

f 0 22

p1 const 1

p2 const 0.02   ;constant grain interonset 20 ms

p3 const 0.04   ;constant grain duration 40 ms

p4 const .002   ;1/10 tempo
accum on
prec 3

p5 range .5 2.5
quant .5 (0 0 5 1 17 1 22 0)


f 5.5 16.5      ;a second field

p1 const 1

p2 const 0.01   ;constant grain interonset 10 ms

p3 const 0.02   ;constant grain duration 20 ms

p4 const .002
accum on
prec 3

p5 const 3.0
</CsScore>
</CsoundSynthesizer>


```

```
<CsoundSynthesizer>
; adapted from Andre Bartetzki's original cmask example
; see http://www.bartetzki.de/en/index.html
<CsOptions>
  -d -o dac
</CsOptions>

<CsInstruments>
sr     = 44100
ksmps  = 10
nchnls = 2

instr 1

k1  oscil   8000*p5,1/p3,1
a1  oscil   k1,p4,2
    outs    a1*(1-p6),a1*p6

endin
</CsInstruments>

<CsScore bin="gmask">
{
f1 0 8193 8 0 4096 1 4096 0
f2 0 8193 10 1 .5 .3 .2 .1
}

f 0 10  ;field 1:  shepard grains

p1 const 1

p2 range .001 .005

p3 range .02 .03

p4 rnd tri
mask 200 800
quant [200 50] .95 [0 150]

p5 range .5 .6

p6 rnd uni
mask (0 0 5 .8 10 0) (0 .2 5 1 10 .2)


f 4 6

p1 const 1

p2 range .001 .005

p3 range .04 .08

p4 rnd tri
mask [2000 1000] [2010 3000]

p5 range .3 .4

p6 range 0 .2


f 6.5 9.5

p1 const 1

p2 rnd uni
mask [.001 .1] [.005 .2] map 1

p3 range .04 .08

p4 rnd tri
mask [4000 2000] [8000 3000] map 1

p5 rnd uni
mask [.3 .5] [.4 .8]

p6 range  .8 1
</CsScore>
</CsoundSynthesizer>


```

```
<CsoundSynthesizer>
; adapted from Andre Bartetzki's original cmask example
; see http://www.bartetzki.de/en/index.html
<CsOptions>
  -d -o dac
</CsOptions>

<CsInstruments>
sr     = 44100
ksmps  = 10
nchnls = 2

instr 1

;p4 frequency
;p5 pan (0...1)

ipanl   table   1-p5 ,1,1
ipanr   table   p5 ,1,1

k1  expon   1,p3,.01
a1  foscil  k1*4200,p4,1,2.41,k1*6,2

    outs    a1*ipanl, a1*ipanr

endin
</CsInstruments>

<CsScore bin="gmask">
{
f1 0 8192 9 .25 1 0
f2 0 8193 10 1
}

f 0 30

p1 const 1

p2 rnd uni
mask [.01 .002 ipl 0] [.1 .01 ipl 0]

p3 range .5 1

p4 rnd uni
mask [860 80 ipl -1.2] [940 2000 ipl 1] map 1
quant 100 .9 0

p5 rnd uni mask [.4 0] [.6 1]


f 31 33

p1 const 1

p2 seg [.08 .8 ipl 2]

p3 seg [.1 2]

p4 range 300 400

p5 seg [0 1]
</CsScore>
</CsoundSynthesizer>

```

```
<CsoundSynthesizer>
; adapted from Andre Bartetzki's original cmask example
; see http://www.bartetzki.de/en/index.html
<CsOptions>
  -d -o dac
</CsOptions>

<CsInstruments>
sr     = 44100
ksmps  = 10
nchnls = 1

instr 1

;p2 onset
;p3 duration
;p4 sound file pointer

kenv    oscil       20000,1/p3,2
aindx   line        p4,p3,p3+p4
asig    tablei  aindx*sr,1

    out     asig*kenv

endin
</CsInstruments>

<CsScore bin="gmask">
{
f1 0 131072 1 "schwermt.aif" 0 4 1  ;43520
f2 0 8193 8 0 4096 1 4096 0
}


;original sound length = 2.2 sec
;after timestretching = 11 sec
f 0 11

p1 const 1

p2 const .01    ;constant grain interonset 10 ms

p3 const .02    ;constant grain duration 20 ms

p4 const .002   ;constant walk through the soundfile table
accum on        ;with 1/5 of interonset = timestretch factor 5
prec 3
</CsScore>
</CsoundSynthesizer>

```

```
<CsoundSynthesizer>
; adapted from Andre Bartetzki's original cmask example
; see http://www.bartetzki.de/en/index.html
<CsOptions>
  -d -o dac
</CsOptions>

<CsInstruments>
sr     = 44100
ksmps  = 10
nchnls = 1

instr 1

;p2 onset
;p3 duration
;p4 sound file pointer

kenv    oscil       20000,1/p3,2
aindx   line        p4,p3,p3+p4
asig    tablei  aindx*sr,1

    out     asig*kenv

endin
</CsInstruments>

<CsScore bin="gmask">
{
f1 0 131072 1 "schwermt.aif" 0 4 1  ;43520
f2 0 8193 8 0 4096 1 4096 0
}

; for use with timestretch.orc !

f 0 11

p1 const 1

p2 const .01    ;constant grain interonset 10 ms

p3 const .02    ;constant grain duration 20 ms

p4 seg [.01 .0004 ipl 4]
accum on        ;from normal to very small time steps
prec 4      ;= exponential slow down
</CsScore>
</CsoundSynthesizer>


```

```
<CsoundSynthesizer>
; adapted from Andre Bartetzki's original cmask example
; see http://www.bartetzki.de/en/index.html
<CsOptions>
  -d -o dac
</CsOptions>

<CsInstruments>
sr     = 44100
ksmps  = 10
nchnls = 1

instr 1

;p2 onset
;p3 duration
;p4 sound file pointer

kenv    oscil       20000,1/p3,2
aindx   line        p4,p3,p3+p4
asig    tablei  aindx*sr,1

    out     asig*kenv

endin
</CsInstruments>

<CsScore bin="gmask">
{
f1 0 131072 1 "schwermt.aif" 0 4 1  ;43520
f2 0 8193 8 0 4096 1 4096 0
}

; for use with timestretch.orc !

f 0 10

p1 const 1

p2 seg [.01 .12]    ;rising grain interonset 10 ...120 ms
prec 2

p3 const .02    ;constant grain duration 20 ms

p4 const .01    ;constant walk through the soundfile table
accum on
prec 2
</CsScore>
</CsoundSynthesizer>


```

```
<CsoundSynthesizer>
; adapted from Andre Bartetzki's original cmask example
; see http://www.bartetzki.de/en/index.html
<CsOptions>
  -d -o dac
</CsOptions>

<CsInstruments>
sr     = 44100
ksmps  = 10
nchnls = 1

instr 1

;p2 onset
;p3 duration
;p4 sound file pointer

kenv    oscil       20000,1/p3,2
aindx   line        p4,p3,p3+p4
asig    tablei  aindx*sr,1

    out     asig*kenv

endin
</CsInstruments>

<CsScore bin="gmask">
{
f1 0 131072 1 "schwermt.aif" 0 4 1  ;43520
f2 0 8193 8 0 4096 1 4096 0
}

; for use with timestretch.orc !

f 0 11

p1 const 1

p2 rnd uni
mask (0 .05 5 .2 11 .05) (0 .1 5 .2) map 1
prec 2

p3 const .2

p4 seg [0 2.1]  ;continuous moving but quantized pointer
quant .1    ; = repeat every grain a few times
</CsScore>
</CsoundSynthesizer>

```

```
<CsoundSynthesizer>
; adapted from Andre Bartetzki's original cmask example
; see http://www.bartetzki.de/en/index.html
<CsOptions>
  -d -o dac
</CsOptions>

<CsInstruments>
sr     = 44100
ksmps  = 10
nchnls = 1

instr 1

;p2 onset
;p3 duration
;p4 sound file pointer

kenv    oscil       20000,1/p3,2
aindx   line        p4,p3,p3+p4
asig    tablei  aindx*sr,1

    out     asig*kenv

endin
</CsInstruments>

<CsScore bin="gmask">
{
f1 0 131072 1 "schwermt.aif" 0 4 1  ;43520
f2 0 8193 8 0 4096 1 4096 0
}

; for use with timestretch.orc !

f 0 11

p1 const 1

p2 range .01 .05    ;random grain interonset 10 ... 50 ms
prec 2

p3 range .04 .1     ;random grain duration 40 ... 100 ms
prec 2

p4 range 0 2.1  ;random pointer
prec 3
</CsScore>
</CsoundSynthesizer>


```

```
<CsoundSynthesizer>
; adapted from Andre Bartetzki's original cmask example
; see http://www.bartetzki.de/en/index.html
<CsOptions>
  -d -o dac
</CsOptions>

<CsInstruments>
sr     = 44100
ksmps  = 10
nchnls = 1

instr 1

;p2 onset
;p3 duration
;p4 sound file pointer

kenv    oscil       20000,1/p3,2
aindx   line        p4,p3,p3+p4
asig    tablei  aindx*sr,1

    out     asig*kenv

endin
</CsInstruments>

<CsScore bin="gmask">
{
f1 0 131072 1 "schwermt.aif" 0 4 1  ;43520
f2 0 8193 8 0 4096 1 4096 0
}

; for use with timestretch.orc !

f 0 11

p1 const 1

p2 rnd uni      ;random interonset, exponential rising density
mask [.2 .005 ipl 1.5] [.4 .01 ipl 1.5] map 1
prec 4

p3 range .02 .05    ;random duration
prec 2

p4 range 0 2.1  ;random pointer
prec 3
</CsScore>
</CsoundSynthesizer>


```

```
<CsoundSynthesizer>
; adapted from Andre Bartetzki's original cmask example
; see http://www.bartetzki.de/en/index.html
<CsOptions>
  -d -o dac
</CsOptions>

<CsInstruments>
sr     = 44100
ksmps  = 10
nchnls = 2

instr 1

ipanl   table   1-p5 ,4,1
ipanr   table   p5 ,4,1

andx    line    p4,p3,p4+p3*p6
asig    tablei  andx*sr,1
kamp    oscil   8000,1/p3,2
        outs    asig*kamp*ipanl, asig*kamp*ipanr

endin
</CsInstruments>

<CsScore bin="gmask">
{
f1 0 262144 1 "whisp.aif" 0 4 1
;= 5.94 sec
f2 0 8192 19 1 1 270 1
f4 0 8192 9 .25 1 0         ; pan function
}

f 0 60

p1 const 1

p2 rnd uni
mask (0 .0005 37 .007 60 .003) (0 .003 37 .15 60 .005)

p3 rnd uni
mask [.3 .02] [.7 .04]

p4
seg [0 5.9]

p5 range 0 1

p6 rnd uni
mask (0 .3 25 1 40 .7) (0 2 4 1 25 1.2)
quant .3 (0 0 25 .9 30 0 45 .9 55 0) (40 0 45 1.5 55 0)
</CsScore>
</CsoundSynthesizer>


```