

**Knut Vaage:**

# multiMORF IV

for

amplified solo trumpet in C, 9 amplified brass instruments\* and computer  
(\*Eb Cornet, 3 Bb Cornets, Eb Horn, 2 Trombones, Euphonium, Eb Tuba)

**2013**

(version 10th of Aug 2013)

The Max/MSP programming is done by Thorolf Thuestad

Video by HC Gilje

## TECHNICAL NEEDS:

Full quadraphonic PA with sub, 11 microphones (1 mic. on each band instr., 2 mics on solo trumpet), a computer with Max/MSP, and a 8 channel sound card is required

Extra: midi-pedal for Solo Trumpet, Egg slicer for Tuba, and optional small bells for Eb Cnt, 3rd Cnt and 2de Tbn (optional simulate bellsound by strokes on harmon-mute)

The video part needs a vide screen and a high quality video projector

(Back projection is prefered)

## ABOUT THE NOTATION OF THE SCORE:

Score is transposed

For detailed info: see Explanation on following page

Accidentals apply for each note only

## DURATION:

10 – 20 min

Commissioned by Erlend Aagaard-Nilsen and BrassWind

First performed at BrassWind 2013 by Erlend Aagaard-Nilsen and players from Manger Brass Band

Financed by Komponistenes Vederlagsfond

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Score at Music Information Centre Norway, P.box 2674 Solli, N-0203 OSLO, [info@mic.no](mailto:info@mic.no)

## **EXPLANATION:**

### **General instruction:**

This piece gives all the involved performers freedom to improvise inside the “rules” given in score.

The score is structured into 10 pages. There are no parts available. All the players must get a copy of the score. The score pages can be performed in a random order. The conductor will give a clear sign by lifting one, or both arms in full length. Amount of fingers is equivalent to page number. The conductor will decide what order, but also if some pages should be played more than one time. The duration of each page can be from 20 sec. to 3 min, and should differ if played more than one time.

Inside each page there are senza misura bars. The conductor will lift the left hand by elbow, and show with how many fingers, which bar to be playing (following the score order). The length of each senza misura bar is from choice of the conductor, normally between 5 sec. and 1 minute.

The duration of the whole piece may differ between 15 and 30 minutes adjusted to the performance situation.

The performers are some places divided into two separate groups, marked in score by “I” and “II”. Group I must follow the impulses from conductors left arm, group II impulses from right arm. Next given page number will cancel this instruction.

When a “X”- signal is given from the conductor (by crossing arms), it means that the soloist must be TACET. Only band and electronics/video will continue. Next given page number will cancel this instruction.

When a “T”- signal is given from the conductor, it means that the brass group must be TACET. Only soloist and electronics/video will continue. Next given page number will cancel this instruction.

The monitoring should give each performer of the brass group his/hers sound producing into ear plug if possible. Normal monitoring is also accepted.

### **SIGNS AND ABBREVIATIONS:**

- \_\_\_\_\_ → continuous sound (Brass: breath when needed. If two players on the same; stagger breathing. Optional circular breathing)
- REP \_\_\_\_\_ → repeat the previous action
- GRAD. TO→ gradually changed into (e.g. transform by little by little mixing next action more and more into previous action. The performer may vary the way of mixing or “morphing”)
- \_\_\_\_→FADE keep note until ”FADE”, and fade from that point during next cue
- KEEP ALL→ (electronics only) gradually making a chord by keeping all notes from given scale
- \_\_\_\_\_ continuous sound no more than one breath per action
- f(pp)** double dynamic (first one indicate how to play and how to sound in PA, next one (in bracket) sound level without amplification)
- DM: 0-AW: distance to microphone from zero to away from mic, e.g:
  - DM:0 as close as poss. (brass: optional inside bell)
  - DM:2 distance to mic. 2 cm
  - DM:10 distance to mic. 10 cm
  - DM:AW away from mic. (outside mic. range)

Very soft sounds can be rich and full because of microphones. It is important to follow the score instructions for distance to microphones.

The solo part is rhythmically free from the brass band. Even so it is necessary to keep track on what the band is doing to adjust the solo-line. Follow the conductor from page to page, but more freely inside each page by ignoring senza misura cues.

The given material indicates what and how to play. When GRAD. TO, arrow is used, change the material from the first to the second phrase - before and after the arrow (see page 2)

When repeating the notated cells, differ the length, and the start/stop point.

The technical informations are always connected to the notated cell, so that the player must switch back and forth the different settings while morphing.

## Solo trumpet in C:

Follow instruction for brass ensemble below

Soloist will handle a midi-pedal to control some effects explained in score

The soloist will have two mics; one for effects and one for amplification

### ABBREVIATIONS (soloist only):

Sosu: soft sub sound (less vibration in lips, extremely slow air stream)

3,2,1... like 1,2,3... below, but start with the whole gesture, reduse according to instruction

### ELECTRONICS:

It is possible to perform the piece without the soloist having an electronic solo part

If the soloist electronics is used, a midi-pedal with following programming will be needed:

I Delay (surround)

II Ring buffer

III Freq. shifter

IV Sustainer

## Brass ensemble:

### ABBREVIATIONS:

1,2,3... notated w. dotted bows, optional repeat of phrase according to bow instructions

Cm: cup mute

Cmc: cup mute closed

Wah: harmon mute, tube in

T.O: remove tube from harmon mute

Hm: harmon mute

Fm: fibre mute

Fmc: fibre mute closed

Pm: paper mute: press a suitable paper w. hand firmly and flat on top of bell

optional stiffer on bigger instruments

(paper mute is not used on Euphonium and Tuba)

sB: snap w. nail on bell or harmon mute to get bell sound (not used for soloist)

blA: blow air

Lscr: lip scratch: lips firmly pressed and slow air stream to make sound  
similar to Vln. scratch

LflzA: lip flutter w. air: flutter w. lips (softly pressed)  
small distance to mouth piece to avoid tone

LflzW: lip flutter, wah-wah mute

TflzA: tongue flutter w. air

TflzW: tongue flutter, wah-wah mute

LTflzA: combine lip and tongue flutter w. air

LTflzW: combine lip and tongue flutter, wah-wah mute

LTflz: Tuba only (hand muting not possible on Tuba)

2off/2on: take off/put on valve slide on 2de valve

PFs: blow as pan flute into tuning slide (if greasy, lips can have 1 mm distance)



PFi: blow as pan flute into instrument  
 adjust instrument/microphone/body to make it possible:  
 for Cornet and Flugel: lower the mic, neck back, bell up  
 for Alto Horn, Barytone and Euphonium: Twist instr. so that mouth piece points up,  
 bell directly towards mic.  
 if Tuba: keep normal position, take off mouth piece, blow into instr. without mouth piece  
 (not used in first version of score)

vS: valve sound: the sound from pressing and lifting the valve, listen to both  
 the action must be firmly, but not too fast

vCl: valve click: make perc-sound with valves (might be a given pitch; fingered as if played)

tG: tuning gliss: gliss. by using 3. valve (tuning) slide trigger (Cornet/Euph. only)

1/2: half valve gliss: press all valves half way down to make it poss. with full range gliss.

Fp: finger pop: pop on mouth piece (on instrument) w. flat fingertips

Hp: hand pop: pop on mouth piece (on instrument) w. inside of flat hand

Tp: tongue pop: make “popping” sound by rapidly/firmly “releasing” tongue from palate  
 (resonance into instr., but no normal sound)

Lp: lip pop: make “popping” sound by rapidly/firmly “releasing” lips from each other  
 (resonance into instr., but no normal sound)

MP: mouth piece only

MP...hiH: mouth piece only, highest possible, into “cave” made by muting hands

IwoA: instrument without mouth piece, blow air into instr.

Lsm: lip smack: make sharp, very short kissing sound 1mm from mouth piece

Msm: mouth piece smack: make sharp, very short kissing sound directly on mouth piece  
 (possible with or without instrument connected)

Kiss: kissing sustained sound: very slow “kissing” of mouth piece, slow air stream

fund: fundamental tone: 1<sup>st</sup> partial of the harmonic row (varies when pressing valves)

reach fund: (Corns and Flugel only) try reaching the fundamental. Normally outside instr.  
 range (removing valve slide on 2de valve can make it easier)

hi.s. ad lib.: high spectrum ad lib: grip fundamental tone in bracket  
 play highest reachable partials ad lib  
 don’t compensate for intonation (partials intonation)

S.R.: suono reale: actual sound, not transposed

LWppl: listen to/wait for previous player

## Technical:

The brass band is treated by a computer with MAX/MSP, with a patch programmed specially for this piece by Thorolf Thuestad. The technician needs to follow the conductor and the instructions in the score. The conductor gives cue for what page, and what senza misura bar.

The MAX/MSP must be able to run a frame work for each page and directly switch from one page to another. The score indicate what effects that may be used on each page. Between the pages it may be necessary to keep sound in delay, or morph/transform from the active page to the next (given by conductor).

The 8 channel sound card receives the instrument into 8 routings:

Routing 1: Solo Trumpet

Routing 2: Eb Cornet, Cornet 3

Routing 3: Cornet 1 & 2

Routing 4: Horn in Eb

Routing 5: Trombone 1

Routing 6: Trombone 2

Routing 7: Euphonium

Routing 8: Tuba

#### PROGRAMMED EFFECTS:

Spectrum generator (spectrum analyzer to noise resonators)

Pitch shifter (no time correction)

Auto tune

Frequenze shifter (distortion)\*

Surround delay\*

Sustainer\*

Reverb

Granulation

Filter bank (equalizer etc.)

Harmonizer (with and without pitch glide)

Sampler (diff. types - e.g. loop samplers)

Morpher (FFT)

Automatized cross fader

Ring modulator

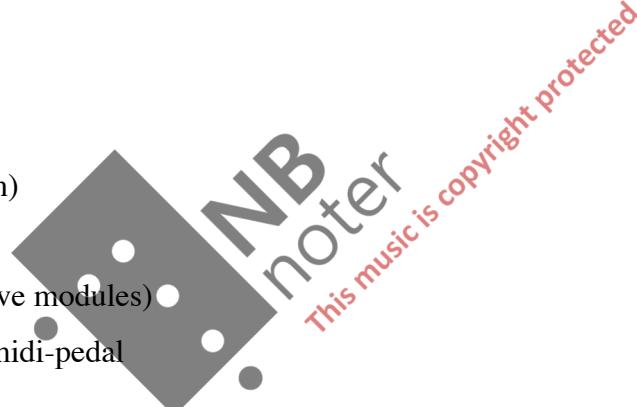
Bit reducer

Analog overdrive simulator (vst plug-in)

Ring buffer\*

Concat synthesis (to construct percussive modules)

\*also controlled by soloist via midi-pedal



#### VISUAL TECHNIC:

Video made by real time processing in jitter/max based on microscope textures from instruments used in the composition. This material is connected to the video work on multiMORF I

## multiMORF IV

(version 10th of Aug 2013)

Knut Vaage

**ROUTING:**

Solo C Trpt alt 1 D.M:10 Fmc hi. s. ad lib. improvise on highest partials (quasi "seljefløyte": trad. folk flute w. partials only) Fm off one long note small notes: alt. pitches w. rep. 2 off reach fund.

Solo C Trpt alt 2 D.M:0 Irr vS Lp vS Tp vS Lsm GRAD. TO D.M:5 LflzA TflzA ossia f(mp) mf > mp >

**Solo technic/Visual**

SOLO ALT 1: DELAY AD LIB. (OPT. RING BUFFER)

SOLO ALT 2: RING BUFFER

**Technical**

SOLOIST ALT 2: CONCAT SYNTHESIS (CONSTRUCT PERC MODULE)  
EFFECT 1: GENERATE HARMONIC SPECTRE FROM HN/TBN/EUPH/TUBA FUNDAMENTALS → GRAD. TO → HIGH SPECTRUM (high partials only) →

EFFECT 2: OUTPUT BRASS 8vb → FADE E. 2 (20 sec.) → fb10 GRAD. TO → fb90  
EFFECT 3: SURROUND DELAY ON SMALL BELLS/HARMON-NAILS → BELL INTO DELAY → BELL INTO SUSTAINER

Loop 1 Brass fundamentals from Hn/Tbn 1/Eu/Tu → LOOP GRAD. INTO GENERATOR →

①                    ②                    ③                    ④                    ⑤

**TUTTI BRASS:**  
D.M:5

sB improvise w. soloist, silent meditation, long rests (TACET)

**Soprano E♭ Cornet**

pp

2 off reach fund. ① bend REP → (TACET)

**Cornet 1**

pp ① bend REP → (TACET)

2 off reach fund. ① bend REP → (TACET)

**Cornet 2**

pp ① bend REP → (TACET)

2 off reach fund. ① bend REP → (TACET)

**Cornet 3**

pp sB improvise w. soloist, silent meditation, long rests (TACET)

**E♭ Horn**

reach fund. ② (no change) (TACET)

pp (ossia 8b) (TACET)

D.M:10 hi. s. ad lib. Fm off (TACET)

**1st Trombone**

pp ① REP → (TACET)

2 off reach fund. ① bend REP → (TACET)

**2nd Trombone**

pp sB improvise w. soloist, silent meditation, long rests (TACET)

**Euphonium**

pp ② (no change) (TACET)

pp ② (no change) (TACET)

D.M:10 hi. s. ad lib. Fm off (TACET)

**E♭ Bass**

(TACET) pp (TACET)

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## multiMORF IV

before next page  
SUSTAINER and  
SOLOIST ONLY

2

D.M:5 one long note small notes: alt. pitches w. rep. Lscr ord. (continuing pitch from start of 2) GRAD. TO > II REP f(mp)

Solo alt 1 GRAD. TO > II REP f(mp)

D.M:5 LTflzA LTflzAW LflzA TflzA GRAD. TO > II REP pp

Solo alt 2 GRAD. TO > II REP pp

S.tech./Vis. SOLO ALT 1: GRAD. DISTURBED, FREQ. SHIFTER SOLO ALT 1: RING BUFFER

SOLO ALT 2: RING BUFFER SOLO ALT 2: GRAD. DISTURBED, FREQ. SHIFTER

(fade in E.1 15 sec.) E.1&2: TBNS: ADD SUSTAINER soft dynamic level

E.1: HARMONIC SPECTR. ON TBNS.(RAISE AD LIB) E.2: GRANULATION ON TBNS. (+/- AD LIB)

E.3: CONCAT SYNTHESIS FOR BRASS E.3: INPUT OFF (FADE) fb:10, t: fader

E.1&2: ADD GENERATOR & GRANULATOR E.3: CONCAT SYNTHESIS FOR EUPH.

Techn. SOLOIST ALT 1: CONCAT SYNTHESIS

①                    ②                    ③                    ④

BRASS: D.M:0 LWpppl SLOWLY - RAPIDLY

Eb Cnt vS Tp/Lp (TACET) f(p) (I) D.M:3 Kss LTflzA LflzA TflzA ossia REP

Cnt 1 vS Tp/Lp (TACET) f(p) (I) D.M:3 Kss LTflzA LflzA TflzA ossia REP

Cnt 2 vS Tp/Lp (TACET) f(p) (I) D.M:3 Kss LTflzA LflzA TflzA ossia REP

Cnt 3 vS Tp/Lp (TACET) f(p) (II) D.M:3 Kss LTflzA LflzA TflzA ossia REP

Hn vS Tp/Lp (TACET) f(p) (II) D.M:3 Kss LTflzA LflzA TflzA ossia REP

Tbn. 1 blA (TACET) mp (I) D.M:5 GRAD. TO > II REP pp

Tbn. 2 blA (TACET) mp (II) D.M:3 Kss LTflzA LflzA TflzA ossia REP

Eup. vS Tp/Lp (TACET) f(p) (I) D.M:0 Irr vS Lp vS Tp vS Lsm REP

Eb Bs vS Tp/Lp (TACET) f(p) (II) D.M:3 Kss LTflzA LflzA TflzA ossia REP

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**3**

D.M:5      1/2 Cmc

Solo alt 1      Solo alt 2      S.tech./Vis.

D.M:5      Cmc 1,2,3... lento      optional:  
impro: gradually less span  
of pitch into microtonal bends  
or microtonal pitch change

GRAD. TO      1/2

SOLO: RING BUFFER

E.1: HARMONIZER ON CNTS 1,2 AND TBNS: SPLIT INTO MULTI.THIRDS      E.1&2: HARMONIZER FADE      BRASS INTO DELAY

E.3: TUBA: CONCAT SYNTH./INTO DELAY - TUNE      Loop 2 Tuba      E.3: PLAYBACK/TRANSPOSE LOOP AD LIB (CROSSFADE W: TUBA) TUBA.: CUT INPUT DELAY      pp (BRASS TACET)

①      ②      ③      ④

E♭ Cnt      D.M:5 Hm 1/2      Senza misura (individual gliss)      tG 23 (5th. part.)

Cnt 1      D.M:5 1/2 Wah      mf      tG 123 (6th. part.)

Cnt 2      D.M:5 1/2 Wah      mf      tG 123 (5th. part.)

Cnt 3      D.M:5 Hm 1/2      GRAD. TO      tG 23 (4th. part.)

Hn      D.M:5 Hm 1/2      GRAD. TO      Hm off (TACET) pp

Tbn. 1      D.M:5 Wah      f      D.M:10 T.O      Hm      GRAD. TO      Hm off (TACET) pp

Tbn. 2      D.M:5 Wah      f      D.M:10 T.O      Hm      GRAD. TO      Hm off (TACET) pp

Eup.      (♩=c. 60) D.M:5 Fm 1/2      GRAD. TO      tG 123 (3rd part.) pp

E♭ Bs      D.M:0 vS Lp Msm Tp vS Lsm      GRAD. TO      GRAD. TO      (TACET) pp

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Tuba: Sounds like soloist, but more rests, less activity

4

D.M:20 *secco*

Solo alt 1 (Pm) *ff secco* D.M:AW Pm → **GRAD. TO** → TACET Pm off

Solo alt 2 (Pm) *fff* → **GRAD. TO** → **GRAD. TO** → D.M:10 lento Pm off

S.tech./Vis. SOLO: SUSTAINER

**Techn.** SOLOIST: SUSTAINER (control output etc.) **GRAD. TO** Sep: 2 sec. E1: GRAN. (HEAVY RHYTHM) ON BRASS E1: GRAN. ON EUPH/TUBA ONLY Sep: 0 sec. NO GRANULATION **DELAYED ACTION CNTS** INTO DELAY (SPEAKERS BEHIND ONLY) (CNTS TACET) before next page DELAY ONLY

E2: DELAY INPUT (ADD DISTR.) E2: DELAY ON CNTS/IN/TBNS (ADD GRADUALLY) E2: CUT INPUT

① ② ③ ④ ⑤

TUTTI BRASS: D.M:3

E♭ Cnt (Pm Lscr) **GRAD. TO** → **GRAD. TO** → D.M:10 *ppp* → D.M:AW 1,2,3... → *fff* → D.M:10 ad lib. ind. rhythms → REP → Pm off TACET

*mp*

Cnt 1 (Pm Lscr) **GRAD. TO** → **GRAD. TO** → D.M:10 *ppp* → D.M:AW 1,2,3... → *fff* → D.M:10 ad lib. ind. rhythms → REP → Pm off TACET

*mp*

Cnt 2 (Pm Lscr) **GRAD. TO** → **GRAD. TO** → D.M:10 *ppp* → D.M:AW 1,2,3... → *fff* → D.M:10 ad lib. ind. rhythms → REP → Pm off TACET

*mp*

Cnt 3 (Pm Lscr) **GRAD. TO** → **GRAD. TO** → D.M:10 *ppp* → D.M:AW 1,2,3... → *fff* → D.M:10 ad lib. ind. rhythms → REP → Pm off TACET

*mp*

Hn (Pm Lscr) **GRAD. TO** → **GRAD. TO** → D.M:10 *ppp* → D.M:AW 1,2,3... → *fff* → Pm off (TACET)

*mp*

Tbn. 1 (Pm Lscr) **GRAD. TO** → **GRAD. TO** → D.M:10 *ppp* → D.M:AW 1,2,3... → *fff* → Pm off (TACET)

*mp*

Tbn. 2 (Pm Lscr) **GRAD. TO** → **GRAD. TO** → D.M:10 *ppp* → D.M:AW 1,2,3... → *fff* → Pm off (TACET)

*mp*

Euph. (Fm Lscr) **GRAD. TO** → Kss → **GRAD. TO** → Fm D.M:5 off MP.....hiH → f(mp) → (TACET)

*mp*

E♭ Bs (Fm Lscr) **GRAD. TO** → Kss → **GRAD. TO** → Fm D.M:5 off MP.....hiH → f(mp) → (TACET)

*mp*

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**5**

Solo alt 1 Sosu D.M:2 1,2,3... variate ad lib. REP

Solo alt 2 D.M:5 one long note small notes: alt. pitches w. rep. LflzA ord. (continuing pitch from start of 2) D.M:0 Irr vS Lp vS Tp vS Lsm GRAD. TO GRAD. TO GRAD. TO f(m)p REP

S.techn./Vis. SOLO: RING BUFFER  
SOLO ALT 2: GRAD. DISTURBED, FREQ. SHIFTER - - - - -

Techn. SAMPLE HN/BRASS (DIFFERENT BUFFERS) PLAYBACK HN MORPH GRAD. TO SHARP BRASS (LOOP 4) ADD TUBE DIST .R.M./CONC. SYNTH. DELAYED ACTION REPEAT MORPH (Hn.-Brass)

Loop 3 Hn. Loop 4 Brass except Hn.

① ② ③ ④

D.M:1 Eb Cnt ① D.M:1 Fp LWppl ① Hp DM:3 ① Hm pppp

D.M:1 Cnt 1 ① Hm pppp

D.M:3 Cnt 2 ② Tp LWppl ② Lp ① Hm pppp

D.M:3 Cnt 3 ① Hm pppp

D.M:3 Hn LTflezA blA D.M:1 Fp Hp vS REP

D.M:1 Tbn. 1 blA D.M:1 Lp Tp Msm REP

D.M:3 Tbn. 2 blA

D.M:1 Eup. ① Fm pppp

D.M:3 Eb Bs ① Fm pppp

multiMORF IV

6

1,2,3... Cmc (tight closed)  
long notes (fermatas) may be done short in repetitions

before next page  
SUST. ONLY

D.M.10

Solo alt 1

continuing from alt 1

Solo alt 2

p

continuing on alt 2

This image shows two staves of musical notation for alto voices. The top staff is labeled 'Solo alt 1' and the bottom staff is labeled 'Solo alt 2'. Both staves begin with a dynamic 'p' (pianissimo). The music consists of six measures. Measure 10 begins with a dotted half note followed by a sixteenth-note pattern. Measures 11-12 show eighth-note patterns. Measures 13-14 show sixteenth-note patterns. Measures 15-16 show eighth-note patterns. Measure 17 concludes with a sixteenth-note pattern. Dashed ovals highlight specific melodic motifs: one in the first measure (measures 1-2) and another in the second measure (measures 3-4). The third measure (measures 5-6) contains a melodic line that spans both staves. The fourth measure (measures 7-8) features a melodic line that spans both staves. The fifth measure (measures 9-10) features a melodic line that spans both staves. The sixth measure (measures 11-12) features a melodic line that spans both staves. The seventh measure (measures 13-14) features a melodic line that spans both staves. The eighth measure (measures 15-16) features a melodic line that spans both staves. The ninth measure (measures 17-18) features a melodic line that spans both staves.

S tech /Vis

## SOLO: RING BUFFER

before next page  
SUST ONLY

D.D: fb20  
GRAN: high sep./slowly

EACH CHORD → GRAD. TO → DELAY GRANULATE (CONTINUE)

SAMPLE TBNS PLAYBACK 2 OCT. DOWN

Loop 5 Tbn.

GRAD. TO → (TUNE GRAD. UP)

D.D: fb90  
GRAN: low sep./fast/pitched

BRASS CHORD INTO SUST.

①                          ②                          ③                          ④                          ⑤                          ⑥

?

(TUNE GRAD. UP)

(TUNE GRADE)

**BRASS CHORI  
INTO SUST.**

D.M.:5  
Cnt 2

Hm

123 (5th part.)

GRAD. TO LTflzW

Hm off

ppp

D.M:5  
Cnt 3

Hm  
23 (4th part.)  
(TACET)  
GRAD. TO LTflzW  
Hm off

*This music is*

D.M.2  
Tbn. 1

blA Lp REP

Hm *ppp*

GRAD. TO LTflzW  
Hm off

D.M:5

Euph.

Fm

blA

Lp

pe

*ppp*

*mp*

D.M:2

GRAD. TO

D.M:5

blA

Msm

LTflzW

Fm

off

fa

D.M:5 E♭ Bs Fm ***ppp*** D.M:2 bla Lp sho GRAD. TO blA Msm fa LTflzW Fm off

**7**

D.M:2 Sosu 1,2,3... Solo alt 1 *pppp* impro. variate REP.

Solo alt 2 PF<sub>i</sub> 0 1 12 13 12 1 0 GRAD. TO PF<sub>s</sub>

S.tech./Vis. SOLO ALT 1: SUSTAINER  
SOLO ALT 2: GRAD. DISTURBED, FREQ. SHIFTER

Techn. SECONDARY TREATMENT OF BRASS PITCH HIGH BY GRAN.  
SAMPLE SEPARATELY LOOPS, TUNE DOWN EGG SLICER (TU) GRAD. TO CUT SUSTAINER INPUT  
BRASS INTO SUSTAINER FADE BRASS SAMPLE/SUSTAINER  
Loop 6 Band Loop 7 Tuba LOW PITCHED EGG SLICER  
↓ except Tuba ↓ (Egg slicer) ↓ (♩ = c. 60)  
GRADUALLY OBSCURED  
(e.g. ADD SURROUND DELAY,  
GRANULATION, PITCH SHIFTER  
RING MODULATOR, FREQ. SHIFTER)

① ② ③

TUTTI: D.M:2 Eb Cnt PF<sub>s</sub> → TACET (PREPARE PF<sub>i</sub>) S.R. PF<sub>i</sub> 0 1 12 13 12 1 0 REP.

Cnt 1 PF<sub>s</sub> → TUTTI BRASS:  
ON TRANSFORM BY Eb CORNET STARTS PF<sub>i</sub>  
WHILE REST DO PF<sub>s</sub> THEN ADD GROUPS ONE BY ONE CORNETS FIRST THEN BIGGER INSTRUMENTS S.R. PF<sub>i</sub> 0 1 12 13 12 1 0 REP.

Cnt 2 PF<sub>s</sub> → S.R. PF<sub>i</sub> 0 1 12 13 12 1 0 REP.

Cnt 3 PF<sub>s</sub> → S.R. PF<sub>i</sub> 0 1 12 13 12 1 0 REP.

Hn PF<sub>s</sub> → S.R. PF<sub>i</sub> 0 1 12 13 12 1 0 REP.

Tbn. 1 PF<sub>s</sub> → MP (low as poss) (breathe ind. when needed) n. p.

Tbn. 2 PF<sub>s</sub> → MP (low as poss) (breathe ind. when needed) n. p.

Euph. PF<sub>s</sub> → S.R. PF<sub>i</sub> 0 1 12 13 12 1 0 REP.

Eb Bs Egg Slicer → Tuba (breathe ind. when needed) n. p. (8<sup>b</sup> if poss)

pizz. w nails on "strings"

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## multiMORF IV

**9**

OPTIONAL: Wah (+=closed, o=open) 1/2  
OR: Cm 1/2 w.out +/o (combining Alt 1 &2 is possible if Cm)

Solo alt 1 lento *pp* + o + o + o + o + o GRAD. TO f 3,2,1...

Solo alt 2 1,2,3... Cmc (tight closed) *p* continuing on page 10

S.tech./Vis. SOLO: RING BUFFER

AUTO-TUNE (pre-programmed pitches triggered by Tbn-gliss)  
Tbn 1 *#* *#o* *#* *#* *#* *#*

Techn. Tbn 2 *pp*

① ② ③ ④ ⑤ ⑥

triggered from Tuba variate Fm rest variate by changing tone into Lp and Tp, if so: D.M: 0

D.M:10 E♭ Cnt *p secco* REP

Cnt 1

Cnt 2

Cnt 3

Hn

D.M:5 Tbn. 1 *pp*

D.M:5 Tbn. 2 *pp*

Euph.

D.M:10 Fm variate rest triggered from Eb Cnt variate by changing tone into Lp and Tp, if so: D.M: 0

E♭ Bs *p secco* REP

10

Irr

Solo alt 1

Solo alt 2

rests ad lib

**GRAD. TO**

vCl

*f/p*

SOLO ALT 1: DELAY AD LIB.

SOLO ALT 2: RING BUFFER

REALTIME SAMPLING, PLAYBACK TRANSPOSED  
FADE IN/OUT, KEEP CHORD UNTIL FADE

PLAYBACK CHORD  
1 SEMI-TONE UP

PLAYBACK CHORD  
1 SEMI-TONE UP

PLAYBACK CHORD  
1 SEMI-TONE UP

PLAYBACK CHORD  
2 SEMI-TONES DOWN

BRASS CHORD  
INTO SUST.

OPTIONAL:  
SOLO ALT 2: SUSTAINER

Techn.

① TUTTI BRASS:  
D.M:5  
(TACET)

② Cmc

③ pp

④ pp

⑤ pp

E♭ Cnt

Cnt 1

Cnt 2

Cnt 3

Hn

Tbn. 1

Tbn. 2

Euph.

E♭ Bs

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