The V-System Chord Tone Gap Method

(original pages with transcriptions)

[*Ted Greene's writing in red ink*]
[*James Hober's 1988 writing in black ink*]

My V-System of 4 note Voicings (with no letter name duplicates, i.e. no doubling)

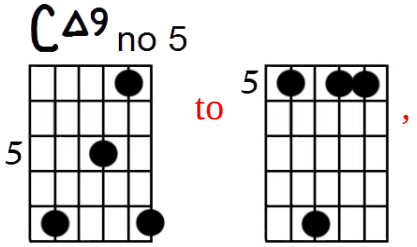
9-19-99 This work & original xeroxed handwriting done by my industrious and inquisitive student, Jim Hober.

B - T	T - A	A - S	
			Read from low to high (left to right).
0	0	0	✓V1
0	0	4	✓V14
0	1	2 (6)	✓V3
0	4	0	✓V13
0	4	4	(unreachable) V1 modified
0	5	2	(unreachable)
1	0	1	✓V2
1	0	5	✓V9
1	2	1	✓V5
1	2	5	(unreachable)
1	4	1	✓V10
1	4	5	(unreachable)
1	6	1	(unreachable)
2	1	0	✓V4
2	1	4	✓V11
2	2	2	✓V8
2	2	6	(unreachable)
2	6	2	(unreachable)

2	5	0	
4	0	0	V6
4	0	4	
4	1	2	V12
4	4	0	
5	0	1	V7
5	2	1	
5	4	1	

V-1 = (0 0 0) No chord tone "gaps," i.e. no "Skip one" or "Skip two," etc.

V-2 = 1 0 1 1-20-05 Notice that all V-2's, from have the two middle voices abutted against each other.



to ,

V-3 = 0 1 2
V-4 = 2 1 0
V-5 = 1 2 1
V6 = 4 0 0
V7 = 5 0 1
V8 = 2 2 2
V9 = 1 0 5
V10 = 1 4 1
V11 = 2 1 4
V12 = 4 1 2
V13 = 0 4 0
V14 = 0 0 4

"Forbidden Gaps": 3, 7 because they are just duplicates.
Octave Equivalence: Add 4 (0 = 4, 1 = 5, 2 = 6) SO TRUE.
Forbidden Neighbors = sum to 2, 6
Forbidden Total Sums = 1, 5, 9

(6-19-03)

Insightful Work of student Jim Hober on my Chord Voicing System.

4 - 01: My current thinking is more focused on

1) 6-19-03 The "CHORD TONE PATH"

Example in V-2: 1 5 → 7 3 which equals BSTA
and 3 7 1 5 = ABST
and 5 1 3 7 = TABS
and 7 3 5 1 or STAB

2) The available intervals between successive voices,
especially between the two lowest and the two highest...
as well as, of course, the total range between the OUTER two voices.

(4-note chords, no doublings)

Gap Sizes Between Chord Voices

	S - A	A - T	T - B
V1	0	0	0
V2 range:	1	0	1
3rds to 6ths			3rds to 6ths
V3	2	1	0
V4	0	1	2
V5	1	2	1
V6 (V1)	0	0	4
V7 (V2)	1	0	5
V8	2	2	2
V9 (V2)	5	0	1
V10 (V2)	1	4	1
V11 (V4)	4	1	2
V12 (V3)	2	1	4
V13 (V1)	0	4	0
V14 (V1)	4	0	0

Note: These are reversals of each other

Note: Gap size of 3 forbidden
(Doubling would occur)

Gap size = number of chord tones that could be placed between two voices.

Chord tone (for this purpose) = one of the 4 distinct notes making up the chord. In other words, the omitted tone(s) of a five or six or seven note chord doesn't (don't) count. For example, C9 (no root) chord tones would be E, G, Bb, D. C's would not be counted filling the gaps.

Also, I would certainly have layed [*sic*] this chart out in the opposite horizontal order: to fit the logical, inner visualization of the layout of the strings on the fingerboard. Oh well, it's still good thinking on Jim's part. I can't imagine this information not coming in handy at times. He is to be commended and certainly credited upon publication of my system. Then a royalty will be offered, if by then I have received substantial value…. [*Ted's words trail off and are unreadable*.]

GAP MIRRORS

V1 - V1 symmetrical

V2 - V2 symmetrical

V3 - V4
V4 - V3

V5 - V5 symmetrical

V6 - V14
V14 - V6

V7 - V9
V9 - V7

V8 - V8 symmetrical

V10 - V10 symmetrical

V11 - V12
V12 - V11

V13 - V13 symmetrical

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My V-System of 4 note Voicings (w/no letter-name duplicates, i.e., no doubling)

"FORBIDDEN GAPS": 3 7 i.e. because they are just duplicates SO TRUE

OCTAVE EQUIVALENCE: ADD 4 (0 = 4, 1 = 5, 2 = 6)

(A) (B) (C) (D) (A) (B) (C) (D)

no chord tone "gaps", i.e. no "skip one" or "skip two" etc.

FORBIDDEN NEIGHBORS = SUM TO 2, 6

FORBIDDEN TOTAL SUMS = 1, 5, 9

1-20-05 Notice that all V-2's, from C△9 maj5  to 5  , have the 2 middle voices abutted against each other

V-1 = no chord tone (0 0 0)
V-2 = 101
V-3 = 012
V-4 = 210
V-5 = 121
V6 = 400
V7 = 501
V8 = 222
V9 = 105
V10 = 141
V11 = 214
V12 = 412
V13 = 040
V14 = 004

read from low to high (left to right)

B-T	T-A	A-S	
0	0	0	✓ V1
0	0	4	✓ V14
0	1	2 (6)	✓ V3
0	4	0	✓ V13
0	4	4	(UNREACHABLE) V1 MODIFIED
0	5	2	(UNREACHABLE)
1	0	1	✓ V2
~~[illegible]~~	~~[illegible]~~	~~1~~	~~[illegible]~~
1	0	5	✓ V9
1	2	1	✓ V5
1	2	5	(UNREACHABLE)
1	4	1	✓ V10
1	4	5	(UNREACHABLE)
1	6	1	(UNREACHABLE)
2	1	0	✓ V4
2	1	4	✓ V11
2	2	2	✓ V8
2	2	6	(UNREACHABLE)
2	6	2	(UNREACHABLE)
2	5	0	
4	0	0	✓ V6
4	0	4	✓
4	1	2	✓ V12

Insightful Work of student Jim Hober on my Chord Voicing System

(6-19-03)

(4-NOTE CHORDS, NO DOUBLINGS)

GAP SIZES BETWEEN CHORD VOICES

[4-01:] My current thinking is more focused on the available intervals between successive notes, especially between the 2 lowest & " " highest... as well as of course the total range between the OUTER 2 voices

(6-19-03) ① The "CHORD TONE PATH" EXAMPLE in V2 7th: 1 5 7 3 which equals BSTA and 3715 = ABST and 5137 = TABS ↓ 7351 or STAB

NOTE: GAP SIZE OF 3 FORBIDDEN (DOUBLING WOULD OCCUR)

		S-A	A-T	T-B
V1		0	0	0
V2		1	0	1
V3		2	1	0
V4		0	1	2
V5		1	2	1
V6	(V1)	0	0	4
V7	(V2)	1	0	5
V8		2	2	2
V9	(V2)	5	0	1
V10	(V2)	1	4	1
V11	(V4)	4	1	2
V12	(V3)	2	1	4
V13	(V1)	0	4	0
V14	(V1)	4	0	0

range: 3rds to 6ths (S-A) ② 3rds to 6ths (T-B)

These are reversals of each other (V10, V11, V12)

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GAP SIZE = NUMBER OF CHORD TONES THAT COULD BE PLACED BETWEEN TWO VOICES.

CHORD TONE, (FOR THIS PURPOSE) = ONE OF THE 4 DISTINCT NOTES MAKING UP THE CHORD.

IN OTHER WORDS, THE OMITTED TONE(S) OF A FIVE (OR SIX OR SEVEN) NOTE CHORD DOESN'T (CAN'T) COUNT. FOR EXAMPLE, C9 (NO ROOT) CHORD TONES WOULD BE E, G, B♭, D. C'S WOULD NOT BE COUNTED FILLING GAPS.

then a royalty will be offered. If further I have received substantial value [illegible]

(4-NOTE CHORDS, NO DOUBLINGS)

GAP SIZES BETWEEN CHORD VOICES

		S-A	A-T	T-B
V1		0	0	0
V2		1	0	1
V3		2	1	0
V4		0	1	2
V5		1	2	1
V6	(V1)	0	0	4
V7	(V2)	1	0	5
V8		2	2	2
V9	(V2)	5	0	1
V10	(V2)	1	4	1
V11	(V4)	4	1	2
V12	(V3)	2	1	4
V13	(V1)	0	4	0
V14	(V1)	4	0	0

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FORBIDDEN GAPS: 3, 7

OCTAVE EQUIVALENCE: ADD 4
(0 = 4, 1 = 5, 2 = 6)

FORBIDDEN NEIGHBORS = SUM TO 2, 6

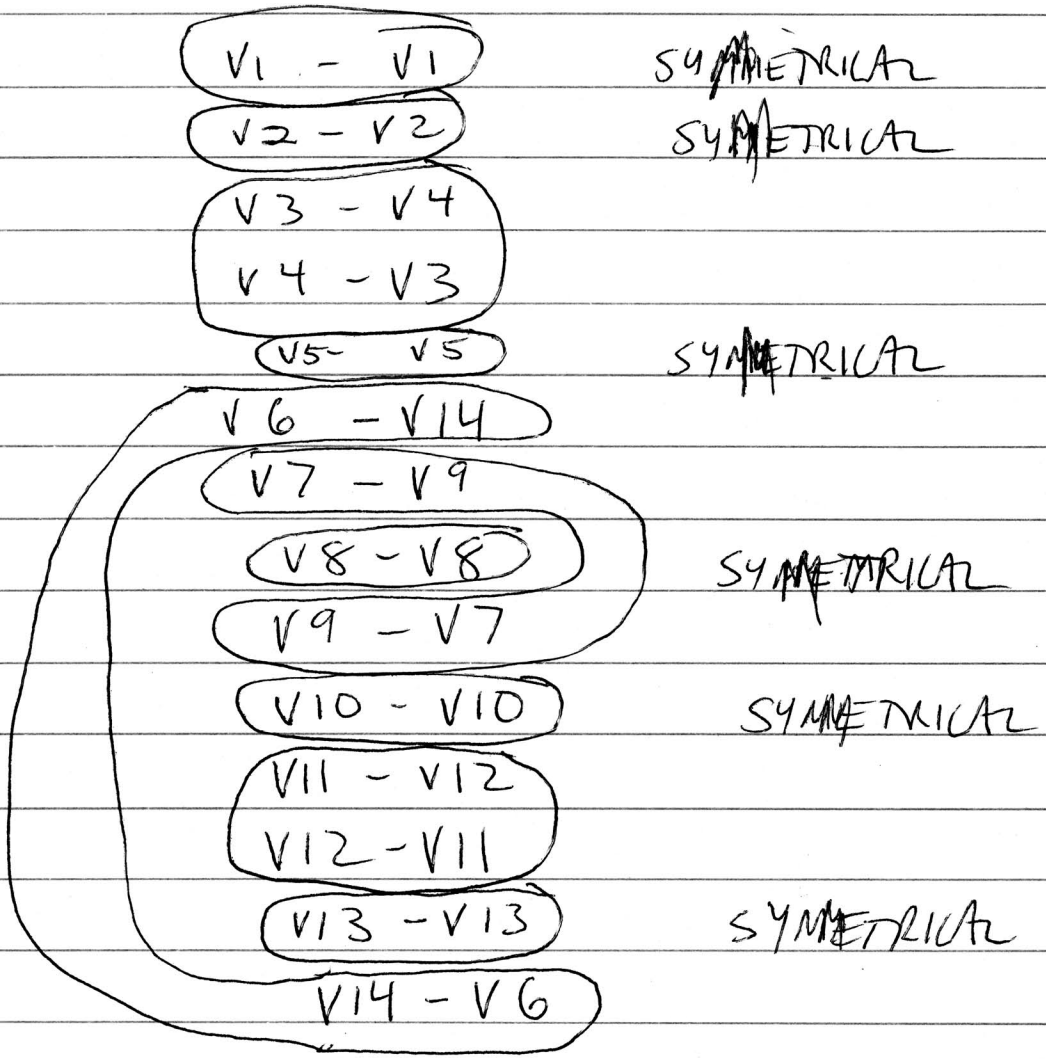
FORBIDDEN TOTAL SUMS = 1, 5, 9

(A) (B) (C) (D) (A) (B) (C) (D)

B-T	T-A	A-S	
0	0	0	V1
0	0	4	V14
0	1	2 (6)	V3
0	4	0	V13
0	4	4	(UNREACHABLE) V1 MODIFIED
0	5	2	(UNREACHABLE)
1	0	1	V2
1	0	5	V9
1	2	1	V5
1	2	5	(UNREACHABLE)
1	4	1	V10
1	4	5	(UNREACHABLE)
1	6	1	(UNREACHABLE)
2	1	0	V4
2	1	4	V11
2	2	2	V8
2	2	6	(UNREACHABLE)
2	6	2	(UNREACHABLE)
2	5	0	
4	0	0	V6
4	0	4	
4	1	2	V12

B-T	T-A	A-S	
4	4	0	
5	0	1	V7
5	2	1	
5	4	1	

GAP MIRRORS


V1 - V1
V2 - V2
V3 - V4
V4 - V3
V5 - V5
V6 - V14
V7 - V9
V8 - V8
V9 - V7
V10 - V10
V11 - V12
V12 - V11
V13 - V13
V14 - V6
SYMMETRICAL
SYMMETRICAL
SYMMETRICAL
SYMMETRICAL
SYMMETRICAL
SYMMETRICAL