The Eagle 53 Guitarist Lush Chords

Chords and Scales for Eagle 53 Guitars

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Published by
Pan Music Publishing

ISBN 978-1-8381219-3-8

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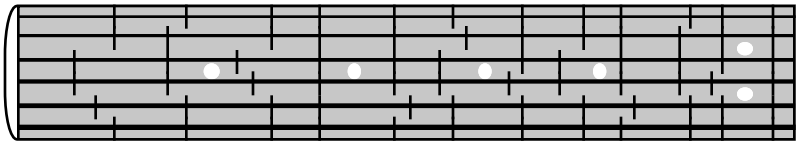
Introduction

This book is a guide for guitarists that want to use my Eagle 53 musical tuning. It contains diagrams of 940 *lush* chords. Lush chords are both strong and strongly rooted. 65 strongly rooted scales (or chord groups) are listed and 31 seven notes per octave scales are listed that are not strongly rooted but are acceptable. Eagle 53 cannot be implemented on regular guitars as a new and unusual fret arrangement is required. Here is what an Eagle 53 fretboard looks like...



If you want to know how I arrived at my Eagle 53 tuning check out my book...

Eagle 53 My Ultimate Musical Tuning (Third Edition)
ISBN 9780956649294

There's also an older, condensed and cheaper eBook on Amazon called:

Eagle 53 Musical Tuning

I play guitar and Eagle 53 was designed with guitars in mind. With Eagle 53, major chords are only available on six notes (E, F, G, A, B and C) but these chords are more in tune than what you would get in 12TET (12 Tone Equal Temperament, the standard Western musical tuning). Minor chords occur on E, G#, A, B, C# and D# and these are also more in tune than 12TET minor chords but they are not very strong and are not strongly rooted. There are lush chords available on every note except A#. I wrote a web app to demonstrate some Eagle 53 chords and progressions. Here's the address...

www.johnsmusic7.com/eagle45.html

The ideas presented in this book are according to my current understanding which may be wrong and may change in the future.

Also I am not saying that you, the reader, must conform to my musical system. The ideas presented here are what work for *me*. This is what gets me going and floats my boat. If you disagree with some of my ideas that is your prerogative and that's fine by me.

With a few exceptions the chords illustrated in this book are all strongly rooted (explained later) and have a strength value (or overall periodicity) greater than or equal to 0.75 (explained later). I call these chords *lush chords* and they are the very best chords for my taste. There are no minor chords illustrated in this book for two reasons... They are weak (strength value < 0.75) and they are not strongly rooted.

For many readers the chapter on mathematical background will be difficult to understand. You don't need to know the maths behind my chords and scales to use them so you can safely skip this chapter and just go straight to playing (if you have an Eagle 53 guitar).

Chapter One
Eagle Frets

First of all, if you don't already have one, you need an Eagle fretted guitar. There are specifications for fret placements listed below. You could hire a luthier to build an Eagle fretted guitar from scratch but it would be simpler, faster and cheaper to buy a guitar and then modify its fretboard yourself.

Over the years I have done a few refrets (I am not a luthier). I would buy a cheap guitar, rip out the frets, fill the slots with wood cement or resin, saw new slots for the new frets and then fit the new frets. This is not easy, especially for the inexperienced, so I recommend hiring a luthier to do the refret for you if you can afford it.

Below are lists of distances from the nut for each fret according to each of the 12 keys. The 'y' indicates the *scale length* of the guitar which is the distance from the nut to the saddle on the lightest string. The saddle is usually angled slightly so that the distance from the nut to the saddle is slightly longer for the lower, thicker strings. I go to seven decimal places in these lists but this degree of precision is unnecessary. A half millimetre or 1/64 inch accuracy should be fine.

Key 1 (E)...0.0632991y, 0.111041y, 0.167311y, 0.199349y, 0.25003y, 0.288254y, 0.333307y, 0.375508y, 0.399535y, 0.444852y, 0.466212y, 0.5y, 0.53165y, 0.555521y, 0.583656y, 0.599675y, 0.625015y, 0.644127y, 0.666654y, 0.687754y, 0.699768y, 0.722426y, 0.733106y, 0.75y.

Key 2 (F)...0.0509683y, 0.111041y, 0.145244y, 0.199349y, 0.240157y, 0.288254y, 0.333307y, 0.358958y, 0.407337y, 0.43014y, 0.466212y, 0.5y, 0.525484y, 0.555521y, 0.572622y, 0.599675y, 0.620078y, 0.644127y, 0.666654y, 0.679479y, 0.703669y, 0.71507y, 0.733106y, 0.75y.

Key 3 (F#)...0.063299y, 0.0993387y, 0.15635y, 0.199349y, 0.25003y, 0.297502y, 0.324531y, 0.375508y, 0.399535y, 0.437544y, 0.473147y, 0.5y, 0.531649y, 0.549669y, 0.578175y, 0.599675y, 0.625015y, 0.648751y, 0.662265y, 0.687754y, 0.699768y, 0.718772y, 0.736574y, 0.75y.

Key 4 (G)...0.0384751y, 0.0993388y, 0.145244y, 0.199349y, 0.25003y, 0.278885y, 0.333307y, 0.358958y, 0.399536y, 0.437544y, 0.466212y, 0.5y, 0.519238y, 0.549669y, 0.572622y, 0.599675y, 0.625015y, 0.639442y, 0.666654y, 0.679479y, 0.699768y, 0.718772y, 0.733106y, 0.75y.

Key 5 (G#)...0.0632991y, 0.111041y, 0.167311y, 0.22002y, 0.25003y, 0.30663y, 0.333307y, 0.375508y, 0.415038y, 0.444852y, 0.479993y, 0.5y, 0.53165y, 0.555521y, 0.583656y, 0.61001y, 0.625015y, 0.653315y, 0.666654y, 0.687754y, 0.707519y, 0.722426y, 0.739996y, 0.75y.

Key 6 (A)...0.0509682y, 0.111041y, 0.167311y, 0.199349y, 0.259774y, 0.288254y, 0.333307y, 0.375508y, 0.407337y, 0.444852y, 0.466212y, 0.5y, 0.525484y, 0.555521y, 0.583656y, 0.599675y, 0.629887y, 0.644127y, 0.666654y, 0.687754y, 0.703669y, 0.722426y, 0.733106y, 0.75y.

Key 7 (A#)...0.0632991y, 0.122591y, 0.15635y, 0.22002y, 0.25003y, 0.297502y, 0.341969y, 0.375508y, 0.415038y, 0.437544y, 0.473147y, 0.5y, 0.53165y, 0.561296y, 0.578175y, 0.61001y, 0.625015y, 0.648751y, 0.670985y, 0.687754y, 0.707519y, 0.718772y, 0.736574y, 0.75y.

Key 8 (B)...0.0632991y, 0.0993387y, 0.167311y, 0.199349y, 0.25003y, 0.297502y, 0.333307y, 0.375508y, 0.399535y, 0.437544y, 0.466212y, 0.5y, 0.53165y, 0.549669y, 0.583656y, 0.599675y, 0.625015y, 0.648751y, 0.666654y, 0.687754y, 0.699768y, 0.718772y, 0.733106y, 0.75y.

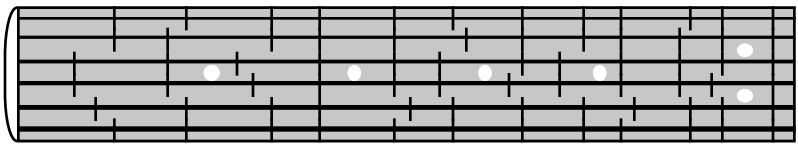
Key 9 (C)...0.0384751y, 0.111041y, 0.145244y, 0.199349y, 0.25003y, 0.288254y, 0.333307y, 0.358958y, 0.399535y, 0.43014y, 0.466212y, 0.5y, 0.519238y, 0.555521y, 0.572622y, 0.599675y, 0.625015y, 0.644127y, 0.666654y, 0.679479y, 0.699768y, 0.71507y, 0.733106y, 0.75y.

Key 10 (C#)...0.0754697y, 0.111041y, 0.167311y, 0.22002y, 0.259774y, 0.30663y, 0.333307y, 0.375508y, 0.407337y, 0.444852y, 0.479993y, 0.5y, 0.537735y, 0.555521y, 0.583656y, 0.61001y, 0.629887y, 0.653315y, 0.666654y, 0.687754y, 0.703669y, 0.722426y, 0.739996y, 0.75y.

Key 11 (D)...0.0384751y, 0.0993387y, 0.15635y, 0.199349y, 0.25003y, 0.278885y, 0.324531y, 0.358958y, 0.399535y, 0.437544y, 0.459185y, 0.5y, 0.519238y, 0.549669y, 0.578175y, 0.599675y, 0.625015y, 0.639442y, 0.662265y, 0.679479y, 0.699768y, 0.718772y, 0.729592y, 0.75y.

Key 12 (D#)...0.0632991y, 0.122591y, 0.167311y, 0.22002y, 0.25003y, 0.297502y, 0.333307y, 0.375508y, 0.415038y, 0.437544y, 0.479993y, 0.5y, 0.53165y, 0.561296y, 0.583656y, 0.61001y, 0.625015y, 0.648751y, 0.666654y, 0.687754y, 0.707519y, 0.718772y, 0.739996y, 0.75y.

For a guitar tuned EADGBE use the fret distances listed in keys 1, 6, 11, 4, 8, and 1 again (corresponds to EADGBE). The frets will look like this...



Here are the frequencies of the notes in Eagle if the frequency of the lowest note is ‘x’ over a four octaves range...

1x, 1.06758x, 1.12491x, 1.20093x, 1.24898x, 1.33339x, 1.405x, 1.49994x, 1.6013x, 1.66538x, 1.80132x, 1.8734x, 2x, 2.13515x, 2.24982x, 2.40186x, 2.49797x, 2.66677x, 2.80999x, 2.99988x, 3.2026x, 3.33075x, 3.60265x, 3.7468x, 4x, 4.27031x, 4.49965x, 4.80372x, 4.99594x, 5.33354x, 5.61998x, 5.99976x, 6.40521x, 6.66151x, 7.20529x, 7.49361x, 8x, 8.54061x, 8.99929x, 9.60743x, 9.99187x, 10.6671x, 11.24x, 11.9995x, 12.8104x, 13.323x, 14.4106x, 14.9872x, 16x.

Chapter Two
Mathematical Background

Two notes played simultaneously sound sweet if their frequencies correspond to a simple ratio. For example, the open A string on a regularly tuned guitar, when played, has a frequency of 110Hz (110 waves per second). The frequency of the E note just above it has a frequency of *approximately* 165Hz. Expressed as a ratio this is 110:165. Both 110 and 165 are evenly divisible by 55 so the ratio can be simplified to 2:3. These are small numbers and the 2:3 interval (an interval is the distance between two musical notes) indeed sounds sweet. The smaller the numbers in the ratio the sweeter the sound. 27:40 sounds terrible in comparison.

In the standard Western tuning, 12 Tone Equal Temperament (12TET) the E note mentioned above is slightly lower than 165Hz. It is 164.8Hz. So the 2:3 ratio in this case is not perfectly in tune but the error is so small as to be unnoticeable. The 2:3 interval in 12TET is narrower than just (perfect) by only 2 cents (a cent is one hundredth of a standard semitone) which is acceptable. In Eagle 53 the 2:3 ratio (where it occurs) is only 0.1 cents out of tune.

Now look at the four note open A chord (A, E, A, C#). *Ideally* the frequencies should be 110Hz, 165Hz, 220Hz, 275Hz (which corresponds exactly to 2:3:4:5). As we saw the *ideal* 165Hz (E) is actually 164.8Hz (using a 12TET instrument) which is close enough to 165Hz to be acceptable. But the *ideal* 275Hz (C#) is, in 12TET, 277.2Hz which is noticeably out of tune with the other notes. The 277.2Hz note is too high (or sharp) by 14 cents which is unacceptable for me. My current maximum tolerance for the mistuning or tempering of a just interval is not more than plus or minus 8.474 cents (2024/1019).

With Eagle 53 however, the C# note in this 2:3:4:5 chord is out of tune by only 1.4 cents, even more accurate than a 12TET Perfect Fifth (which is only 2 cents out of tune).

So the idea is to get all the notes in a chord tuned so that any two notes are as close as possible to a simple just interval or ratio. With 12TET major and minor chords one note is always significantly out of tune with the others by 14 cents (in major chords) or 16 cents (in minor chords). With Eagle the maximum deviation from just (or pure) in major and minor chords is only 1.4 cents.

When building chords I like to have every pair of notes in a chord to be within 8.474 cents of what I consider to be a *good* harmony (not melody) interval. Harmony has to do with notes played simultaneously and melody has to do with notes played in sequence. Here is a list of what I consider to be good harmony intervals over a two octave range. The ratios on the left are just intervals, the numbers in the middle are the widths of the intervals in cents and the numbers on the right are the strength values of the intervals using my 2/n + 2/d formula (n stands for numerator and d stands for denominator). Note that the ratios are usually written such that the left hand side is greater than or equal to the right hand side (e.g. 5/3). I won't use a harmony interval with a strength value less than 0.4.

```
 1/1 = 0.0     cents   4.00
10/9 = 182.404 cents   0.42
 9/8 = 203.91  cents   0.47
 8/7 = 231.174 cents   0.54
 7/6 = 266.871 cents   0.62
 6/5 = 315.641 cents   0.73
11/9 = 347.408 cents   0.40
 5/4 = 386.314 cents   0.90
 9/7 = 435.084 cents   0.51
 4/3 = 498.045 cents   1.17
```

11/8	= 551.318	cents	0.43
7/5	= 582.512	cents	0.69
10/7	= 617.488	cents	0.49
3/2	= 701.955	cents	1.67
11/7	= 782.492	cents	0.47
8/5	= 813.686	cents	0.65
13/8	= 840.528	cents	0.40
5/3	= 884.359	cents	1.07
12/7	= 933.129	cents	0.45
7/4	= 968.826	cents	0.79
9/5	= 1017.6	cents	0.62
11/6	= 1049.36	cents	0.52
13/7	= 1071.7	cents	0.44
2/1	= 1200	cents	3.00
15/7	= 1319.44	cents	0.42
13/6	= 1338.57	cents	0.49
11/5	= 1365	cents	0.58
9/4	= 1403.91	cents	0.72
16/7	= 1431.17	cents	0.41
7/3	= 1466.87	cents	0.95
12/5	= 1515.64	cents	0.57
17/7	= 1536.13	cents	0.40
5/2	= 1586.31	cents	1.40
13/5	= 1654.21	cents	0.55
8/3	= 1698.04	cents	0.92

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11/4 = 1751.32 cents   0.68
14/5 = 1782.51 cents   0.54
17/6 = 1803    cents   0.45
 3/1 = 1901.96 cents   2.67
19/6 = 1995.56 cents   0.44
16/5 = 2013.69 cents   0.53
13/4 = 2040.53 cents   0.65
10/3 = 2084.36 cents   0.87
17/5 = 2118.64 cents   0.52
 7/2 = 2168.83 cents   1.29
18/5 = 2217.6  cents   0.51
11/3 = 2249.36 cents   0.85
15/4 = 2288.27 cents   0.63
19/5 = 2311.2  cents   0.51
23/6 = 2326.32 cents   0.42
 4/1 = 2400    cents   2.50
```

So if I am constructing chords not wider than two octaves (4/1) then *every* possible pair of notes in the chord must be within 8.474 cents of one of the just intervals listed above (except those underlined, see below).

Intervals that are very narrow (excluding unisons) produce an unpleasant phenomenon called beating. Play any two notes on a piano or a guitar that are only one semitone apart and you will clearly hear the beating which sounds like a wobble or a growl. The frequency of the beats in an interval is the frequency of the higher note minus the frequency of the lower note.

I consider any interval (with a regular harmonic timbre such

as a guitar, piano or organ) between 8.5 cents and 173.9 cents to be illegal as they produce significant beating. My maximum tolerance for tempering a just interval is 8.474 cents (8.5 cents approximately). The lower beating bound (8.5 cents) is a unison (1/1) tempered by 8.5 cents, and the upper bound (173.9 cents), is my narrowest (apart from a unison) legal *harmony* interval, 10/9 (which is 182.4 cents), tempered flat by 8.5 cents.

While compiling my lists of chords I discovered that the 15/7 interval (1319.4 cents) seems to produce some significant beating even though it is a lot wider than 173.9 cents. It turns out that the first overtone (or second harmonic or partial) of the 7 (which is 14) beats strongly against the fundamental of the 15 (which is 15). 15/14 is 119.4 cents which is within my significant beating range of 8.5 cents to 173.9 cents. If you don't know what harmonics or partials or overtones are do an internet search on "the harmonic series" or "overtones" or check out my book: Eagle 53 My Ultimate Musical Tuning 3rd Edition.

The second harmonic (or first overtone) of a note is only half as loud as the fundamental (or first harmonic). The third harmonic (or second overtone) is only one third as loud as the fundamental, and so on. So any beating that occurs among harmonics that are further along the harmonic series is progressively less noticeable than any beating that occurs between two fundamentals.

With the following intervals: 13/6, 13/7, 11/5, 11/6 and 15/7 the first overtone (or second harmonic) of the lower note beats significantly against the fundamental (or first harmonic) of the higher note. For me this means that 13/6, 13/7, 11/5, 11/6 and 15/7 should be illegal in a harmony context (i.e. illegal in chords) even though they all have an overall strength or periodicity value greater than 0.4. 15/8 is already illegal in a harmony context as it has an overall strength value less than 0.4.

Consider 17/6. The 6's third harmonic (18) beats against 17's fundamental (17). 18/17 is 99 cents. However the third harmonic is fainter (not as loud) than a first or second harmonic

so the beating won't be as noticeable. Currently I don't consider any beating that occurs beyond the second harmonic (or first overtone) to be significant which means that 17/6 is for me, currently, legal.

I need to revise my other books and mention these five newly illegal harmony intervals.

In 12TET all the intervals wider than a unison (1/1) are multiples of 100 cents wide. E.g. 100c, 200c, 300c, 400c, 500c, 600c, 700c etc. Most of the intervals intervals in Eagle 53 are quite different to these and are more in tune. There is also a greater variety of good intervals in Eagle 53 than in 12TET.

The *Overall Strengths* of Chords

Consider a just (perfect) six note major chord. The frequencies of the notes, and how they relate to each other, can be indicated by integers. A six note major chord looks like 2:3:4:5:6:8. So if the frequency of the lowest note is 200Hz (200 waves per second) then the frequencies of all six notes will be 200Hz, 300Hz, 400Hz, 500Hz, 600Hz and 800Hz.

A six note minor chord looks like 10:15:20:24:30:40. These are much bigger numbers than 2:3:4:5:6:8. The smaller the numbers, the sweeter the chord. I call these numbers separated by colons IRCs. Integer Representation of a Chord. Every chord listed in this book has an IRC above it. No chord in this book is perfectly in tune (or just) but all these chords are close enough to just to be described using an IRC.

If you were to plot the waves associated with each note in a just chord the pattern will repeat at regular intervals (or periods). The time (relative to the lowest note, see below) it takes for the pattern to repeat is a measure of how sweet the chord is. The shorter the time, the sweeter the chord. Look at the 2:3:4:5 major chord. Let's say its pattern repeats every one second.

Now look at the 10:15:20:24 minor chord where the lowest note has the same frequency as the lowest note in the major chord above. If my understanding is correct this minor chord will take a lot longer, five times longer (i.e. 5 seconds in this example) for its wave pattern to repeat than the major chord above and is therefore much weaker (or slower) and not as sweet.

These repeating times are relative. Play a 2:3:4:5 chord on a piano. Now play the same chord an octave higher and the time it takes for the pattern to repeat will be half the time for the lower chord. In other words the higher chord seems to be twice as fast as the lower chord. But it seems that these times should be *relative* to the lowest note in each chord. So with these two 2:3:4:5 chords their speeds *relative* to their lowest notes will be the same. Note that I use the terms "speed" and "strength" interchangeably and they have the same practical meaning.

I think that on pianos some chords that are acceptable in the mid to high ranges are simply too slow in the lower ranges. You rarely hear chords played on bass guitars, it's usually just one note at a time.

Here's how I calculate the *overall strengths* (or overall periodicity) of chords (I describe a *sum of parts* method later which is an alternative to *overall strength*). First of all I assign any single note a strength value of 1.0.

For a two note chord (two notes played simultaneously) x:y, my formula is $2(1/x + 1/y)$. x and y are integers. E.g. 7/5 has a strength value of $2(1/7 + 1/5)$ which is 0.69.

For a three note chord x:y:z my formula is...
$2(1/x + 1/y + 1/z)$. So for any chord with two or more notes add the inverses of each integer in the IRC and then multiply this sum by 2.

Why multiply by 2? When you multiply the sum of the inverses of the numbers in an IRC by 2 then any chord with a value greater than 1.0 should sound stronger than any single note on its

own and any chord with a value less than 1 should sound weaker than a single note on its own. I am 99.9% sure that my formula for 2 note chords is good. I am fairly sure that my formula for the overall strengths of chords with three or more notes is good as well but it's hard to be certain. Either way, whether I'm right or wrong, if you find minor chords acceptable then all 940 lush chords listed in this book are definitely stronger than any minor chord and therefore should be acceptable.

The overall strength of a 2:3:4:5:6:8 chords is...

$$2(1/2 + 1/3 + 1/4 + 1/5 + 1/6 + 1/8) = 3.15$$

For a while I wouldn't use chords with an overall strength less than 0.75 but now I will accept chords with an overall strength value of 0.4 or higher.

There are many chords where every possible pairing of two notes in the chord makes an acceptable harmony interval but the overall strength of the chord is is less than 0.4. These chords are, for me, illegal.

The Sum of Parts of Chords

Another approach to measuring how sweet a chord is is to calculate the sum of its parts. Look at two triads 4:5:6 and 10:12:15. The 4:5:6 contains a 5/4, a 6/4 (=3/2) and a 6/5. Using the 2/x + 2/y formula these three intervals have values of 0.9, 1.67 and 0.73 which add up to 3.3.

The 10:12:15 chord contains a 12/10 (=6/5), a 15/10 (=3/2) and a 15/12 (=5/4). The exact same intervals as the 4:5:6 chord and therefore the same sum of parts value: 3.3.

Both chords have the same *sum of parts* values but 4:5:6 is clearly a lot faster, or stronger, than 10:12:15. So the *overall strength* is a better measure here than the *sum of parts*. It is interesting that a 3:4:5 chord is stronger (overall) than 4:5:6 but 4:5:6 has a greater *sum of parts* (2.4) than 3:4:5 (2.24).

So which method to use? Overall Strength or Sum of Parts? I think both methods are useful and describe two different but valid things. However I think the overall strength of a chord is much more important than the sum of its parts. In the chords illustrated in this book I show the overall strengths of chords based on their IRCs and not the sum of their parts.

Note that (on paper) the overall strength (or overall periodicity) of a 2:3:4:5:7 chord is slightly greater than a 2:3:4:5:8 chord but the latter chord definitely sounds stronger. This is because when you substitute an 8 for the 7 you introduce two very strong intervals: an octave (8/4 = 2/1) and a double octave (8/2 = 4/1). So there is more than one thing going on when you analyse chords (e.g. overall strength versus sum of parts). Beating is another factor. The bottom line for me is if all the intervals in a chord are good (within 8.474 cents of just) and the overall strength is >=0.4 then the chord is acceptable regardless of the sum of parts.

The Root Notes of Chords

If a chord contains one or more of the numbers 1, 2, 4, 8 and 16 in the IRC then it seems to me that the lowest of these is the root note of the chord and the chord is strongly rooted. Higher powers of 2 such as 32 and 64 and beyond don't quite do it for me. I had thought that in the 3:4:5 chord the 3 was obviously the root note but I was shown something that led to me to see that the root of this chord is the 4, not the 3. If you play each note in sequence the 4 note definitely sounds more resolved than the 3 or 5 and is therefore the root note of the chord.

I define a 'P2' as being any of these five integers: 1, 2, 4, 8 or 16. These are all powers of 2. 2 to the power of zero is 1.

So in a 2:3:4:5:7 chord the 2 is the root note of the chord (it is the lowest P2 that occurs). Chords are named after their root notes. The 3:5:7:9 chord contains no P2 and is therefore not strongly rooted (and hard to name). I tested it and none of the notes sounded like a root note to me. I'm suspicious of chords that

aren't strongly rooted. To me they sound restless and vague and for a while I wouldn't use them but I'm open to using them now.

I have to admit that the 10 in the minor triad 10:12:15 sounds a little bit rooted (if you ignore the middle note 10:15 reduces to 2:3) but it is not as obviously rooted as a 1, 2, 4, 8 or 16 when they occur in an IRC and so 10:12:15 is not strongly rooted.

There are no P2s in minor chords (e.g. 10:15:20:24:30:40 or 10:12:15) and this is another reason why I wouldn't use them for a time. Sure 10:15 can be simplified to 2:3 (contains a 2) but simplifying isn't appropriate in this situation. Why? 10:15 looks acceptable when it is simplified to 2:3 but 10:24 simplifies to 5:12 which does not contain a P2. In a strongly rooted chord *every* note (apart from the root note), when paired with the root note, makes an interval n/d where n and/or d is a P2. This P2 root note phenomenon seems strange and counterintuitive to me. For a long time I thought that the root note of a good just chord should be the lowest note but my ears tell me different. The root of 3:4:5 is clearly the 4. I have tested a lot of chords that contain a P2 in the IRC and the lowest P2 that occurs in these chords always sounded like the root note to me.

Minor Chords

I prefer chords whose overall strength is 0.75 or greater. If I was stuck for a chord I could go as low as 0.4 but not lower. Look at the 10:15:20:24:30:40 minor chord. The overall strength value of this chord is 2(1/10+1/15+1/20+1/24+1/30+1/40) which is 0.633. This is lower than 0.75. And, as I said above, this chord is not strongly rooted, no P2. I prefer strongly rooted chords.

I regard 10:15:20:24:30:40 minor chords as being corrupted 2:3:4:6:8 chords. You can insert a 5 between the 4 and 6 in the 2:3:4:6:8 chord and you get a nice major chord: 2:3:4:5:6:8. If you instead insert a 4.8 between the 4 and 6 in the 2:3:4:6:8 chord (this makes a 10:15:20:24:30:40 chord) this note pairs sweetly with all the other notes and the sum of parts is the same as it is for the

2:3:4:5:6:8 chord but the overall strength of the chord is greatly diminished. The lowest integers in the IRC of the latter chord are 10:15:20:24:30:40, much bigger numbers indicating a low overall strength (0.633). A 10:12:15 minor triad has an overall strength of 0.5 which is weak but acceptable, to me that is.

There are clearly musical situations where a standard minor chord in a progression will sound much better than a major chord. I suspect that if you substitute a 2:3:4:6 or a 2:3:4:6:8 chord for the minor chord the substitution will not only work, but will sound much better. 2:3:4:6:8 is a 10:15:20:24:30:40 minor chord with the 24 removed.

Almost all of the chords illustrated in this book have an overall strength greater than or equal to 0.75 and are strongly rooted (contain a P2 in the IRC). So I'm just describing the very best chords in this book. The sequel to this book "The Eagle 53 Guitarist Jazz Chords" will describe the other chords that are not *lush* but are very versatile in the right context. These *Jazz* chords all have an overall strength value of 0.4 or higher.

Scales and Chord Groups

There are 65 strongly rooted scales and 31 other scales described in this book. With every scale listed, over a one octave range, between 1/1 and 2/1, every note, when paired with every other note is within 8.474 cents of what I consider to be a good melodic interval. Here is my list of good melodic intervals over a one octave range. The ratios on the left are just intervals. The numbers in the middle are the strength values of the intervals using my 2/n + 2/d formula (these are all >=0.2). The numbers on the right are the widths of the intervals in cents. I won't use melodic intervals with a strength value less than 0.2. For intervals in a harmony (not melody) context my cut off point is different: 0.4 instead of 0.2.

1/1	4	0.0000
20/19	0.2053	88.8007
19/18	0.2164	93.6030
18/17	0.2288	98.9546
17/16	0.2426	104.9554
16/15	0.2583	111.7313
15/14	0.2762	119.4428
14/13	0.2967	128.2982
13/12	0.3205	138.5727
12/11	0.3485	150.6371
11/10	0.3818	165.0042
21/19	0.2005	173.2679
10/9	0.4222	182.4037
19/17	0.2229	192.5576
9/8	0.4722	203.9100
17/15	0.2510	216.6867
8/7	0.5357	231.1741
15/13	0.2872	247.7411
7/6	0.6190	266.8709
20/17	0.2176	281.3583
13/11	0.3357	289.2097
19/16	0.2303	297.5130
6/5	0.7333	315.6413
17/14	0.2605	336.1295
11/9	0.4040	347.4079
16/13	0.2788	359.4723
21/17	0.2129	365.8255
5/4	0.9000	386.3137
19/15	0.2386	409.2443
14/11	0.3247	417.5080
9/7	0.5079	435.0841
22/17	0.2086	446.3625
13/10	0.3538	454.2140
17/13	0.2715	464.4278
21/16	0.2202	470.7809
4/3	1.1667	498.0450
23/17	0.2046	523.3189
19/14	0.2481	528.6871
15/11	0.3152	536.9508
11/8	0.4318	551.3179
18/13	0.2650	563.3823
7/5	0.6857	582.5122
24/17	0.2010	596.9996
17/12	0.2843	603.0004
10/7	0.4857	617.4878
23/16	0.2120	628.2744
13/9	0.3761	636.6177
16/11	0.3068	648.6821
19/13	0.2591	656.9854

22/15	0.2242	663.0492
3/2	1.6667	701.9550
23/15	0.2203	740.0056
20/13	0.2538	745.7861
17/11	0.2995	753.6375
14/9	0.3651	764.9159
25/16	0.2050	772.6274
11/7	0.4675	782.4920
19/12	0.2719	795.5580
8/5	0.6500	813.6863
21/13	0.2491	830.2533
13/8	0.4038	840.5277
18/11	0.2929	852.5921
23/14	0.2298	859.4484
5/3	1.0667	884.3587
22/13	0.2448	910.7903
17/10	0.3176	918.6417
12/7	0.4524	933.1291
19/11	0.2871	946.1951
26/15	0.2103	952.2590
7/4	0.7857	968.8259
23/13	0.2408	987.7467
16/9	0.3472	996.0900
25/14	0.2229	1003.8015
9/5	0.6222	1017.5963
20/11	0.2818	1034.9958
11/6	0.5152	1049.3629
24/13	0.2372	1061.4273
13/7	0.4396	1071.7018
28/15	0.2048	1080.5572
15/8	0.3833	1088.2687
17/9	0.3399	1101.0454
19/10	0.3053	1111.1993
21/11	0.2771	1119.4630
23/12	0.2536	1126.3193
25/13	0.2338	1132.0998
27/14	0.2169	1137.0391
29/15	0.2023	1141.3085
2/1	3.0000	1200.0000

Here are the notes that occur in the descriptions above each chord. The middle column is the distance in cents from the lowest note, E1. There is no A1 to D#1. The note after G#1 is A2.

1	0	E1
2	113	F1
3	204	F#1
4	317	G1
5	385	G#1
6	498	A2
7	589	A#2
8	702	B2
9	815	C2
10	883	C#2
11	1019	D2
12	1087	D#2
13	1200	E2
14	1313	F2
15	1404	F#2
16	1517	G2
17	1585	G#2
18	1698	A3
19	1789	A#3
20	1902	B3
21	2015	C3
22	2083	C#3
23	2219	D3
24	2287	D#3
25	2400	E3
26	2513	F3
27	2604	F#3
28	2717	G3
29	2785	G#3
30	2898	A4
31	2989	A#4
32	3102	B4
33	3215	C4
34	3283	C#4
35	3419	D4
36	3487	D#4
37	3600	E4

Here is a brief overview of Eagle 53. The ratios on the left are just notes (in relation to the tonic, 1/1). The numbers to the right of these are the Eagle 53 notes (in cents) which are close to the just notes.

```
 1/1      0.0       just
16/15   113.2075   sharp of just by 1.5 cents
 9/8    203.7736    flat of just by 0.1 cents
 6/5    316.9811   sharp of just by 1.3 cents
 5/4    384.9057    flat of just by 1.4 cents
 4/3    498.1132   sharp of just by 0.1 cents
 7/5    588.6792   sharp of just by 6.2 cents
 3/2    701.8868    flat of just by 0.1 cents
 8/5    815.0943   sharp of just by 1.4 cents
 5/3    883.0189    flat of just by 1.3 cents
 9/5   1018.8679   sharp of just by 1.3 cents
15/8   1086.7925    flat of just by 1.5 cents
 2/1   1200.0       just
```

It seems to me that all the chords in this book (and the sequel Eagle 53 Guitarist Jazz Chords book), where the highest prime factor that occurs among the numbers in the IRC is 3, are within 0.1 cents of just. If the highest prime factor is 5 these chords should be within 1.6 cents of just. I haven't checked every interval yet but I suspect that all chords where the highest prime factor is 7 should be within 6.3 cents of just. Every interval in every chord listed should be within 8.474 cents of a good just interval as listed on pages 8 to 10.

Chapter Three
Composition

When composing melodies I recommend using any of the 96 scales described near the end of this book (over a one octave range). 65 of these scales are "strongly rooted" (i.e. they contain a "P2" in their IRS, Integer Representation of a Scale, which is a 1, 2, 4, 8 or 16). If you finish a musical phrase with a 1, 2, 4, 8 or 16 the phrase will sound "resolved", like hearing the answer to a question.

The other "6:8:9" scales are not "strongly rooted" but are acceptable. These scales all contain a 1/1, 4/3 and 3/2. If you multiply these fractions by 6 you get 6:8:9.

These scales can also be viewed as chord groups, especially if you are using lush chords only. If you use lush chords (lush chords are strongly rooted) whose root notes occur in any scale chosen from the 96 scale listed (over the scale's one octave range, problems may arise outside of this range) then any progression should be acceptable. If you are using a strongly rooted scale (or chord group) then if the last chord played in a progression is on a 1, 2, 4, 8 or 16 then the progression should sound resolved. If two P2s occur (e.g. 8 and 16) then the lowest of these is the root. For me, in a melodic context, *tonic* and *root* have the same meaning.

If you are considering *all* of the notes used and not just those that occur in a scale over a one octave range I have two approaches to composition: loose and strict. With both approaches you need to establish a "melodic base". This entails choosing a set of notes where every note, when paired with every other note, makes an interval that is within 8.474 cents of a good melodic interval (these are listed in my John's Rules Music book). Any just melodic interval n/d is good if 2/n + 2/d >=0.2.

Here's how you do it. There should be a diagram of an

Eagle 53 guitar fretboard on my web site. The address is...

www.johnsmusic7.com/E53fretboard2.jpg

Click "save" or "save page as" in your browser to download the file. You can manipulate the image by rotating it and/or resizing it and then print it. If my web site is down you could scan the fretboard diagram on the back cover of this book, resize it and print it.

The guitar is tuned EADGBE from lowest (bass) string to highest (treble) string. To be more specific the strings are tuned to E1, A2, D2, G2, B3, E3. Begin by drawing a black circle or disk on *all* the E and B notes where they occur in the diagram just to the left of the nut or relevant fret. All these E and B notes pair nicely, melodically, with each other and they also pair nicely, melodically, with any other note you choose to use. When I say *all* I mean all the E1s, E2s E3s, E4, B2s, B3s and B4s.

Next you need to select the other notes you want to use. If you want to have the open E major chord available you will need to choose the G#2 note in which case you need to draw a black circle where all of the G#2 notes occur in the diagram. There is only one note that does not pair nicely melodically with G#2 and that is the G2 note just below it so draw an 'X' on the diagram where the G2 notes occur (not *all* the G notes: G1, G2, G3 etc. just the G2 notes where they occur. It could be the case that the G1 and G3 notes are omitted.

So every time you choose a note apart from the Es and Bs there will be one or two or three notes that you will need to avoid. So place a black circle on the chosen notes and an 'X' on the notes to avoid. Here are the rules for selecting certain notes and avoiding others...

If you choose an A, avoid D 7 notes below it and D 19 notes below it.

If you choose an A#, avoid F 7 notes above it and F 19 notes above it.

B is always good.

If you choose a C, avoid C# 1 note above it.

If you choose a C#, avoid C 1 note below it and F# 7 notes below it and F# 19 notes below it.

If you choose a D, avoid D# 1 note above it and A 7 notes above it and A 19 notes above it.

If you choose a D#, avoid D 1 note below it.

E is always good.

If you choose an F, avoid A# 7 notes below it and and A# 19 notes below it.

If you choose an F#, avoid C# 7 notes above it and C# 19 notes above it.

If you choose a G, avoid G# 1 note above it.

If you choose a G#, avoid G 1 note below it.

Note that these rules apply to my Eagle 53 tuning and do *not* apply to 12 Tone Equal Temperament.

You cannot choose a note that has an 'X' on it. Keep going until you have all the notes you want or every single note has either a circle or an 'X' on it. These chosen notes (circles) form the 'melodic base'. If I'm right then you cannot play a sour note melodically if you stick to the melodic base.

What about chord progressions?

Here's the loose version. If you stick to lush chords only (which are strongly rooted and hence can be treated as a 'single note') any progression should be good as long as the root notes of the chords used belong to the 'melodic base'. This doesn't work for chords that are *not* strongly rooted (meaning they don't function like a single note) unless *all* the notes in the chord belong to the melodic base.

Here's the strict version. *Every* note that occurs in *every* chord used must belong to the melodic base regardless of whether the chords are strongly rooted or otherwise. If this condition is met then all chord progressions should be good.

If I had to choose between loose or strict I would go with strict. It is interesting to me that the Eagle 53 I, IV, V chord progression (e.g. E major, A major, B major) is acceptable using the loose approach but unacceptable using the strict approach. The C#3 note in the A major chord does not pair nicely, melodically with the F#2 note in the B major chord (a 680 cents interval). Replacing the A major chord with an A minor chord solves the problem.

Note that if you choose, say, an A2 note and the D2 note above it (a good melodic pair) you cannot use the A3 note because this does not pair nicely with the D2 note. So some notes that are legal over a one octave range may be illegal if you repeat them in a lower or higher octave range.

Chapter Four
Lush Chords

Below is an example of a chord diagram. Vertical lines indicate frets. Os indicate the notes to be played. N stands for Nut and X indicates a string that shouldn't be played. The dashes at the bottom indicate the 3rd, 5th, 7th, 9th and 12th frets. Obviously the frets on an Eagle 53 guitar do not line up neatly like in the diagrams here but the diagrams should be clear enough to identify the correct notes to be played on an Eagle guitar. The chords are named E1, F1, F#1, G1, G#1 (there are no chords on A1 to D#1, these notes do not occur). Then A2, A#2 etc. up to G#2. Then A3, A#3 etc. up to G#3. Then A4 and so on.

In the text above the diagram below the A2-55 on the left indicates the 55th A2 chord. To the right of this is an IRC, in this case 5:4:8:12. These numbers are ordered from lowest (bass) strings to highest (treble) strings which is why the 5 appears before the 4. The 1.317 here is the overall strength of the chord. On the right the note names are listed (not in order of pitch but from lower strings to higher).

```
A2-56  5:4:8:12  1.317  C#2,A2,A3,E3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
            -       -       -       -           -
```

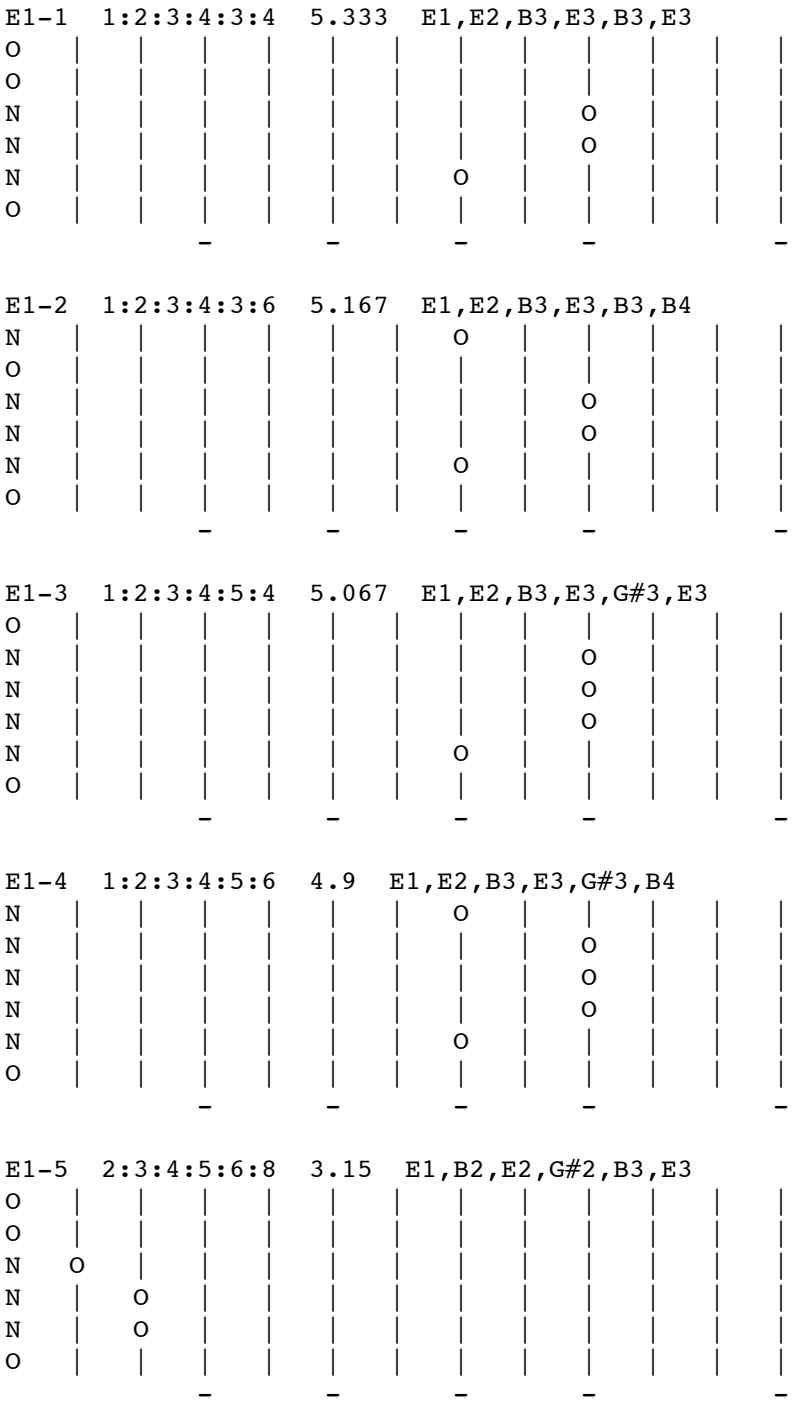
There are no lush chords on A#2 or A#3. On both F#1 and F#2 there are only two lush chords available and in both cases one chord is a subset of the other. Some other notes have a plenitude of chords (for example there are 148 chords on C2). The range of chords is from E1 to C4 and I don't go beyond the 12th fret. Some chords with notes on frets higher than the 8th fret are not listed.

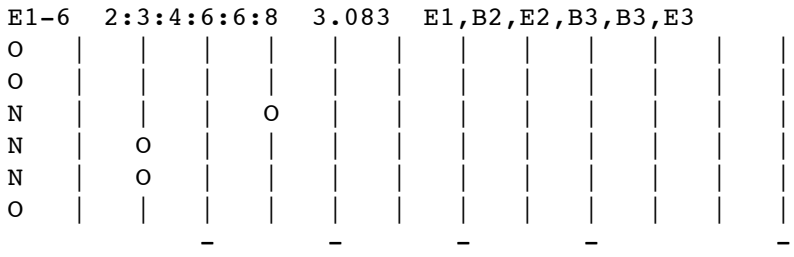
Some chords are difficult to play but I included them for

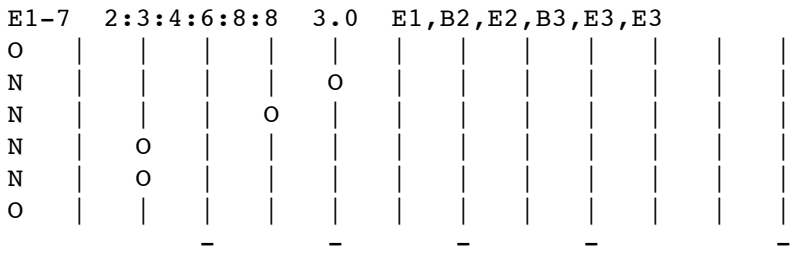
completeness.

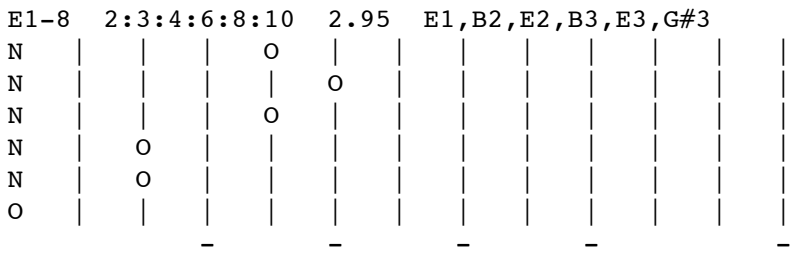
Note that an Eagle D functions differently to a 12TET D. An Eagle D is 9/5 (1019 cents) above E (1/1) whereas a 12TET D is 16/9 (1000 cents) above E (1/1).

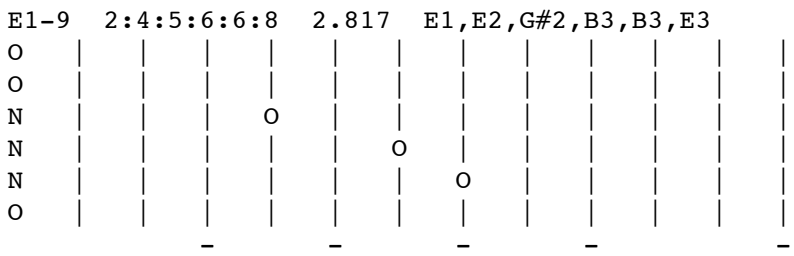
Here are the chords...

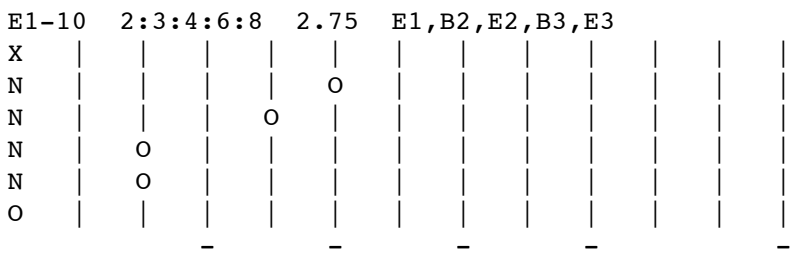

E1-1 1:2:3:4:3:4 5.333 E1,E2,B3,E3,B3,E3
E1-2 1:2:3:4:3:6 5.167 E1,E2,B3,E3,B3,B4
E1-3 1:2:3:4:5:4 5.067 E1,E2,B3,E3,G#3,E3
E1-4 1:2:3:4:5:6 4.9 E1,E2,B3,E3,G#3,B4
E1-5 2:3:4:5:6:8 3.15 E1,B2,E2,G#2,B3,E3


E1-6 2:3:4:6:6:8 3.083 E1,B2,E2,B3,B3,E3


E1-7 2:3:4:6:8:8 3.0 E1,B2,E2,B3,E3,E3


E1-8 2:3:4:6:8:10 2.95 E1,B2,E2,B3,E3,G#3


E1-9 2:4:5:6:6:8 2.817 E1,E2,G#2,B3,B3,E3


E1-10 2:3:4:6:8 2.75 E1,B2,E2,B3,E3

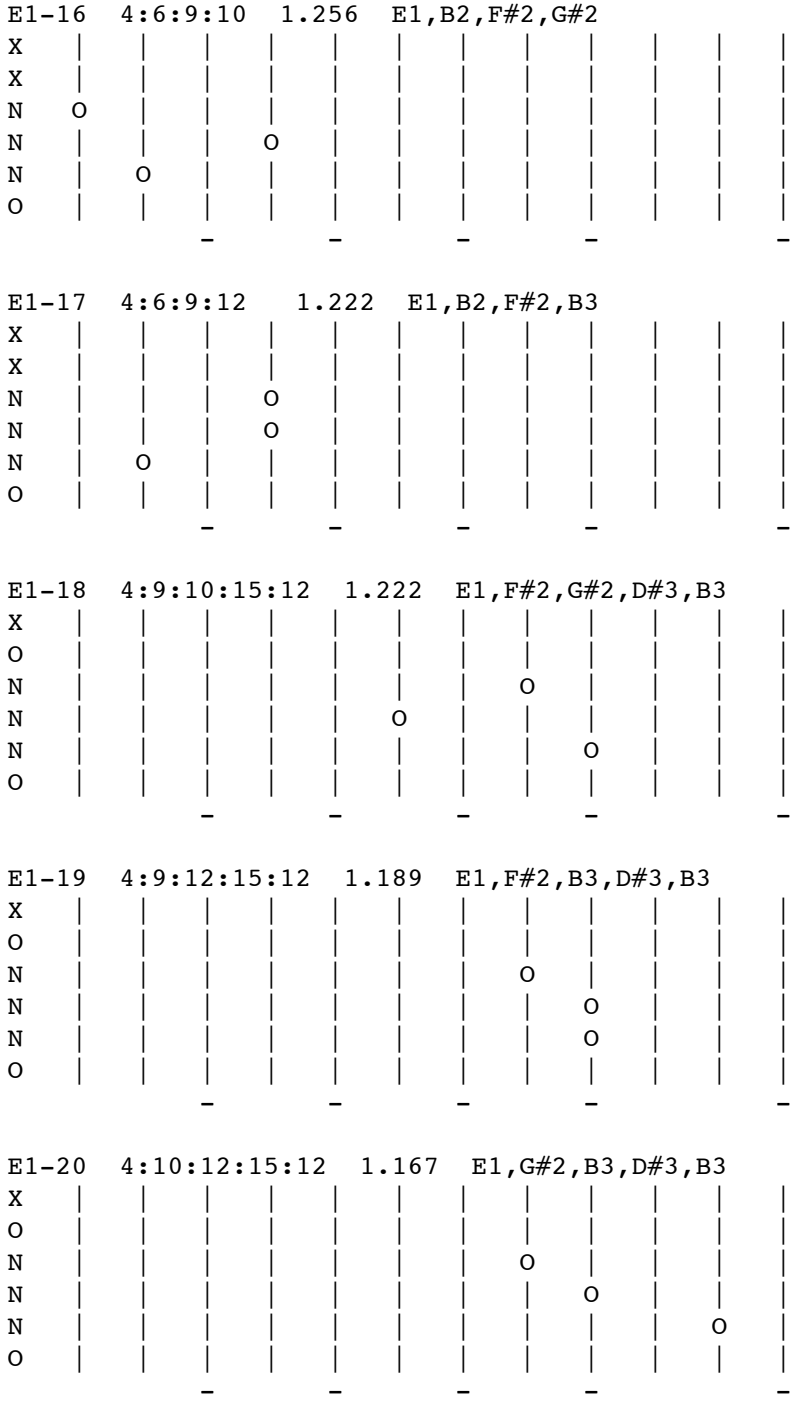
```
E1-11  2:4:5:6:8:8  2.733  E1,E2,G#2,B3,E3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -

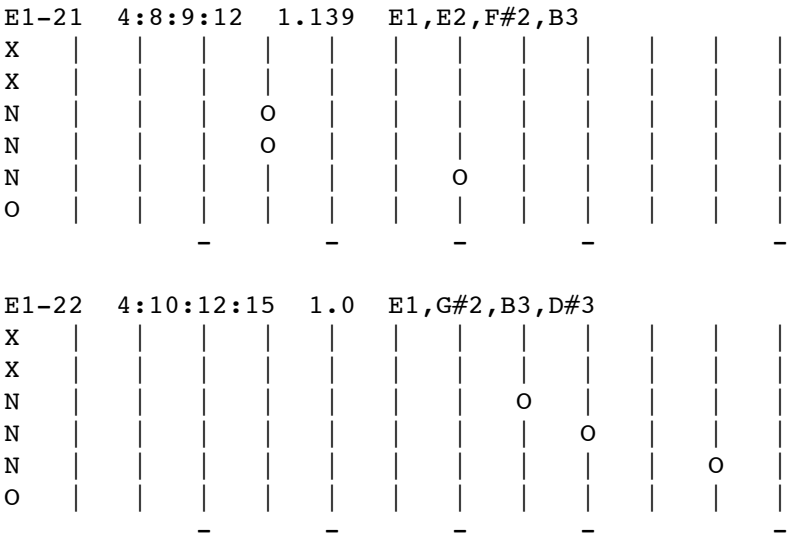
E1-12  2:4:5:8:6:8  2.733   E1,E2,G#2,E3,B3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -

E1-13  2:5:6:8:6:8  2.567  E1,G#2,B3,E3,B3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   |   |   O   |
O   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -

E1-14  4:6:9:12:12  1.389  E1,B2,F#2,B3,B3
X   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -

E1-15  4:6:9:12:15   1.356  E1,B2,F#2,B3,D#3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -
```


E1-16 4:6:9:10 1.256 E1,B2,F#2,G#2
E1-17 4:6:9:12 1.222 E1,B2,F#2,B3
E1-18 4:9:10:15:12 1.222 E1,F#2,G#2,D#3,B3
E1-19 4:9:12:15:12 1.189 E1,F#2,B3,D#3,B3
E1-20 4:10:12:15:12 1.167 E1,G#2,B3,D#3,B3


E1-21 4:8:9:12 1.139 E1,E2,F#2,B3
X
X
N
N
N
O
E1-22 4:10:12:15 1.0 E1,G#2,B3,D#3
X
X
N
N
N
O

```
F1-1  2:3:4:5:6:8  3.15  F1,C2,F2,A3,C3,F3
N   O   |   |   |   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

F1-2  2:3:4:5:6  2.9  F1,C2,F2,A3,C3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

F1-3  2:3:4:5:7  2.852  F1,C2,F2,A3,D#3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

F1-4  2:3:4:5  2.567  F1,C2,F2,A3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

F1-5  4:5:7:10:12:15  1.686  F1,A2,D#2,A3,C3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

```
F1-6  4:5:8:10:12:16  1.642  F1,A2,F2,A3,C3,F3
N   O   |   |   |   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

F1-7  4:5:7:9:12  1.574  F1,A2,D#2,G2,C3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

F1-8  4:5:7:10:12  1.552  F1,A2,D#2,A3,C3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

F1-9  4:5:8:9:12  1.539  F1,A2,F2,G2,C3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

F1-10  4:5:8:10:12  1.517  F1,A2,F2,A3,C3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

```
F1-11  4:6:7:9:12  1.508  F1,C2,D#2,G2,C3
X   |   |   |   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |
            -       -       -       -       -

F1-12  4:5:8:10:14  1.493  F1,A2,F2,A3,D#3
X   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |
            -       -       -       -       -

F1-13  4:6:8:9:12  1.472  F1,C2,F2,G2,C3
X   |   |   |   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |
            -       -       -       -       -

F1-14  4:5:7:9  1.408  F1,A2,D#2,G2
X   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |
            -       -       -       -       -

F1-15  4:5:7:10  1.386  F1,A2,D#2,A3
X   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |
            -       -       -       -       -
```

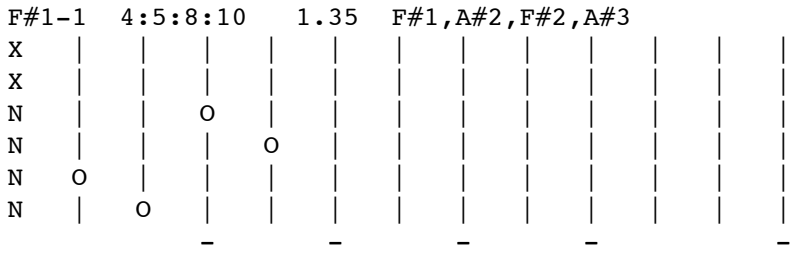
```
F1-16  4:5:8:9  1.372  F1,A2,F2,G2
X   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

F1-17  4:5:8:10  1.35  F1,A2,F2,A3
X   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

F1-18  4:6:7:9  1.341  F1,C2,D#2,G2
X   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

F1-19  4:6:7:10  1.319  F1,C2,D#2,A3
X   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

F1-20  4:6:8:9  1.306  F1,C2,F2,G2
X   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```


F#1-1 4:5:8:10 1.35 F#1,A#2,F#2,A#3
X
X
N
N
N
N
O
O
O
F#1-2 4:5:8 1.15 F#1,A#2,F#2
X
X
X
N
N
N
O
O

```
G1-1  2:3:3:4:5:8  3.483  G1,D2,D2,G2,B3,G3
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G1-2  2:3:3:4:6:8  3.417  G1,D2,D2,G2,D3,G3
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G1-3  2:3:3:5:5:8  3.383  G1,D2,D2,B3,B3,G3
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G1-4  2:3:4:4:5:8  3.317  G1,D2,G2,G2,B3,G3
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G1-5  2:3:3:5:6:8  3.317  G1,D2,D2,B3,D3,G3
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

```
G1-6  2:3:4:4:6:8  3.25  G1,D2,G2,G2,D3,G3
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G1-7  2:3:3:4:5  3.233  G1,D2,D2,G2,B3
X   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G1-8  2:3:4:5:5:8  3.217  G1,D2,G2,B3,B3,G3
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G1-9  2:3:3:4:6  3.167  G1,D2,D2,G2,D3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G1-10  2:3:4:5:6:8  3.15  G1,D2,G2,B3,D3,G3
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

```
G1-11  2:3:3:5:5  3.133  G1,D2,D2,B3,B3
X   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
            -       -       -       -       -

G1-12  2:3:4:4:5  3.067  G1,D2,G2,G2,B3
X   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
            -       -       -       -       -

G1-13  2:3:3:5:6  3.067  G1,D2,D2,B3,D3
X   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
            -       -       -       -       -

G1-14  2:3:4:4:6  3.0  G1,D2,G2,G2,D3
X   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
            -       -       -       -       -

G1-15  2:3:4:5:5  2.967  G1,D2,G2,B3,B3
X   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
            -       -       -       -       -
```

```
G1-16  2:3:4:5:6  2.9  G1,D2,G2,B3,D3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G1-17  2:3:3:4  2.833  G1,D2,D2,G2
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G1-18  2:3:3:5  2.733  G1,D2,D2,B3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G1-19  2:3:4:4  2.667  G1,D2,G2,G2
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G1-20  2:3:4:5  2.567  G1,D2,G2,B3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

```
G1-21  4:5:6:8:10:16  1.808  G1,B2,D2,G2,B3,G3
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G1-22  4:5:6:8:12:16  1.775  G1,B2,D2,G2,D3,G3
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G1-23  4:6:6:10:10:15  1.7  G1,D2,D2,B3,B3,F#3
N   |   O   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G1-24  4:5:6:8:10  1.683  G1,B2,D2,G2,B3
X   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G1-25  4:5:6:8:12  1.65  G1,B2,D2,G2,D3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

```
G1-26  4:5:6:10:10  1.633  G1,B2,D2,B3,B3
X   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G1-27  4:5:8:8:10  1.6  G1,B2,G2,G2,B3
X   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G1-28  4:5:6:10:12  1.6  G1,B2,D2,B3,D3
X   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

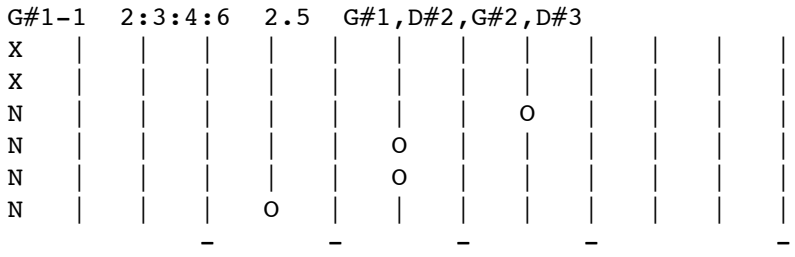
G1-29  4:5:8:10:10  1.55  G1,B2,G2,B3,B3
X   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G1-30  4:5:6:8  1.483  G1,B2,D2,G2
X   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

```
G1-31  4:5:6:10  1.433  G1,B2,D2,B3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G1-32  4:5:8:8  1.4  G1,B2,G2,G2
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G1-33  4:5:8:10  1.35  G1,B2,G2,B3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```


G#1-1 2:3:4:6 2.5 G#1,D#2,G#2,D#3
X
X
N
N
N
N
O
O
O
G#1-2 2:3:4 2.167 G#1,D#2,G#2
X
X
N
N
N
N
O
O
O
G#1-3 4:6:8:9 1.306 G#1,D#2,G#2,A#3
X
X
N
N
N
N
O
O
O

```
A2-1  1:2:3:4:3  4.833  A2,A3,E3,A4,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

A2-2  2:2:4:5:6:6  3.567  A2,A2,A3,C#3,E3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
            -       -       -       -           -

A2-3  2:2:4:5:6:8  3.483  A2,A2,A3,C#3,E3,A4
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
            -       -       -       -           -

A2-4  2:3:4:5:6:6  3.233  A2,E2,A3,C#3,E3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
            -       -       -       -           -

A2-5  2:3:4:5:6:8  3.15  A2,E2,A3,C#3,E3,A4
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
            -       -       -       -           -
```

```
A2-6  2:3:4:5:6  2.9  A2,E2,A3,C#3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -

A2-7  2:2:4:5  2.9  A2,A2,A3,C#3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
              -       -       -       -           -

A2-8  2:3:4:5:8  2.817  A2,E2,A3,C#3,A4
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -

A2-9  2:3:4:6:8  2.75  A2,E2,A3,E3,A4
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -

A2-10  2:3:4:5  2.567  A2,E2,A3,C#3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
              -       -       -       -           -
```

```
A2-11  2:3:4:5  2.567  A2,E2,A3,C#3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -

A2-12  2:4:5:6:6 2.567  A2,A3,C#3,E3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -

A2-13  2:3:4:6  2.5  A2,E2,A3,E3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -

A2-14  2:4:5:6:8  2.483  A2,A3,C#3,E3,A4
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -

A2-15  2:5:6:8:6  2.317  A2,C#3,E3,A4,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   |   |   O   |
O   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -
```

```
A2-16  3:4:6:8:9:12  2.139  E1,A2,E2,A3,B3,E3
O   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -       -

A2-17  3:4:6:8:10:12  2.117  E1,A2,E2,A3,C#3,E3
O   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -       -

A2-18  3:4:6:9:9:12  2.111  E1,A2,E2,B3,B3,E3
O   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -       -

A2-19  3:4:6:9:10:12  2.089  E1,A2,E2,B3,C#3,E3
O   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -       -

A2-20  3:4:6:9:9:15  2.078  A2,E2,B3,B3,G#3
N   |   |   |   O   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -       -
```

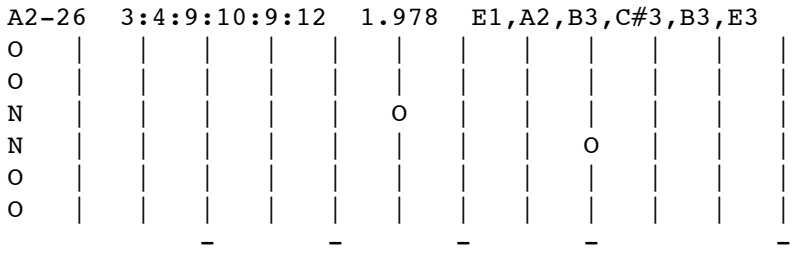
```
A2-21  3:4:6:9:12:12  2.056 E1,A2,E2,B3,E3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

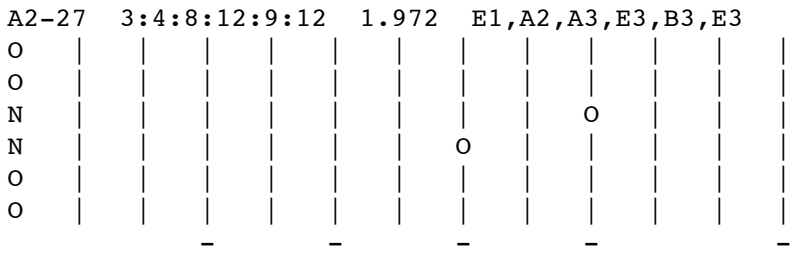
A2-22  3:4:8:9:9:12  2.028  E1,A2,A3,B3,B3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

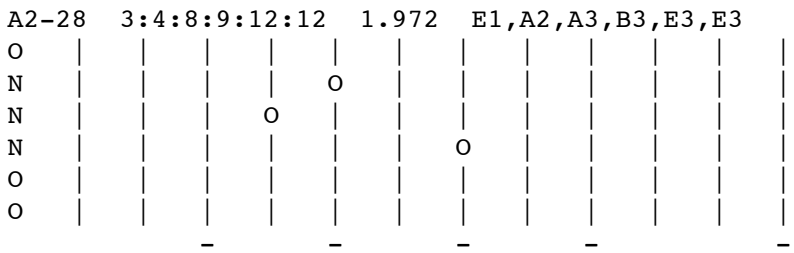
A2-23  3:4:6:9:12:15  2.023  A2,E2,B3,E3,G#3
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

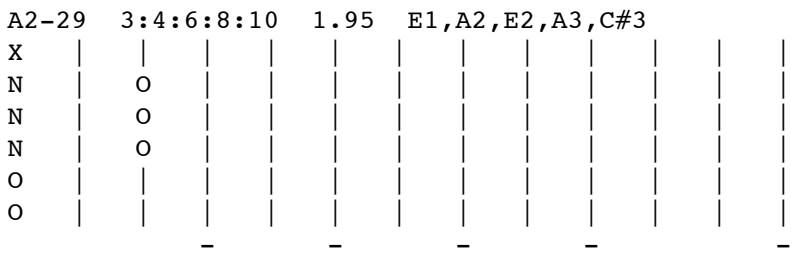
A2-24  3:4:8:10:9:12  2.006  E1,A2,A3,C#3,B3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

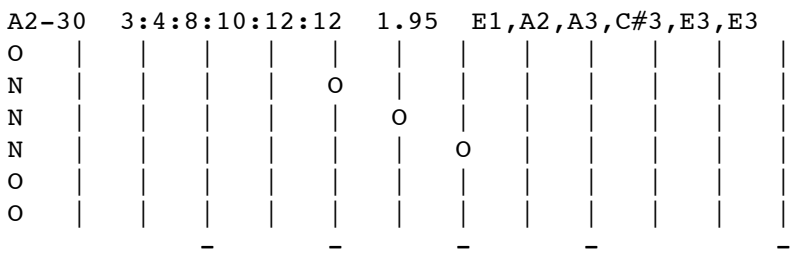
A2-25  2:5:6:8  1.983  A2,C#3,E3,A4
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   |   |   O   |
O   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```


A2-26 3:4:9:10:9:12 1.978 E1,A2,B3,C#3,B3,E3
O | | | | | | | | | | | |
O | | | | | | | | | | | |
N | | | | | O | | | | | | |
N | | | | | | | | O | | | |
O | | | | | | | | | | | |
O | | | | | | | | | | | |
- - - - -


A2-27 3:4:8:12:9:12 1.972 E1,A2,A3,E3,B3,E3
O | | | | | | | | | | | |
O | | | | | | | | | | | |
N | | | | | | | | O | | | |
N | | | | | | O | | | | | |
O | | | | | | | | | | | |
O | | | | | | | | | | | |
- - - - -


A2-28 3:4:8:9:12:12 1.972 E1,A2,A3,B3,E3,E3
O | | | | | | | | | | | |
N | | | | O | | | | | | | |
N | | | O | | | | | | | | |
N | | | | | | O | | | | | |
O | | | | | | | | | | | |
O | | | | | | | | | | | |
- - - - -


A2-29 3:4:6:8:10 1.95 E1,A2,E2,A3,C#3
X | | | | | | | | | | | |
N | O | | | | | | | | | | |
N | O | | | | | | | | | | |
N | O | | | | | | | | | | |
O | | | | | | | | | | | |
O | | | | | | | | | | | |
- - - - -


A2-30 3:4:8:10:12:12 1.95 E1,A2,A3,C#3,E3,E3
O | | | | | | | | | | | |
N | | | | O | | | | | | | |
N | | | | | O | | | | | | |
N | | | | | | O | | | | | |
O | | | | | | | | | | | |
O | | | | | | | | | | | |
- - - - -

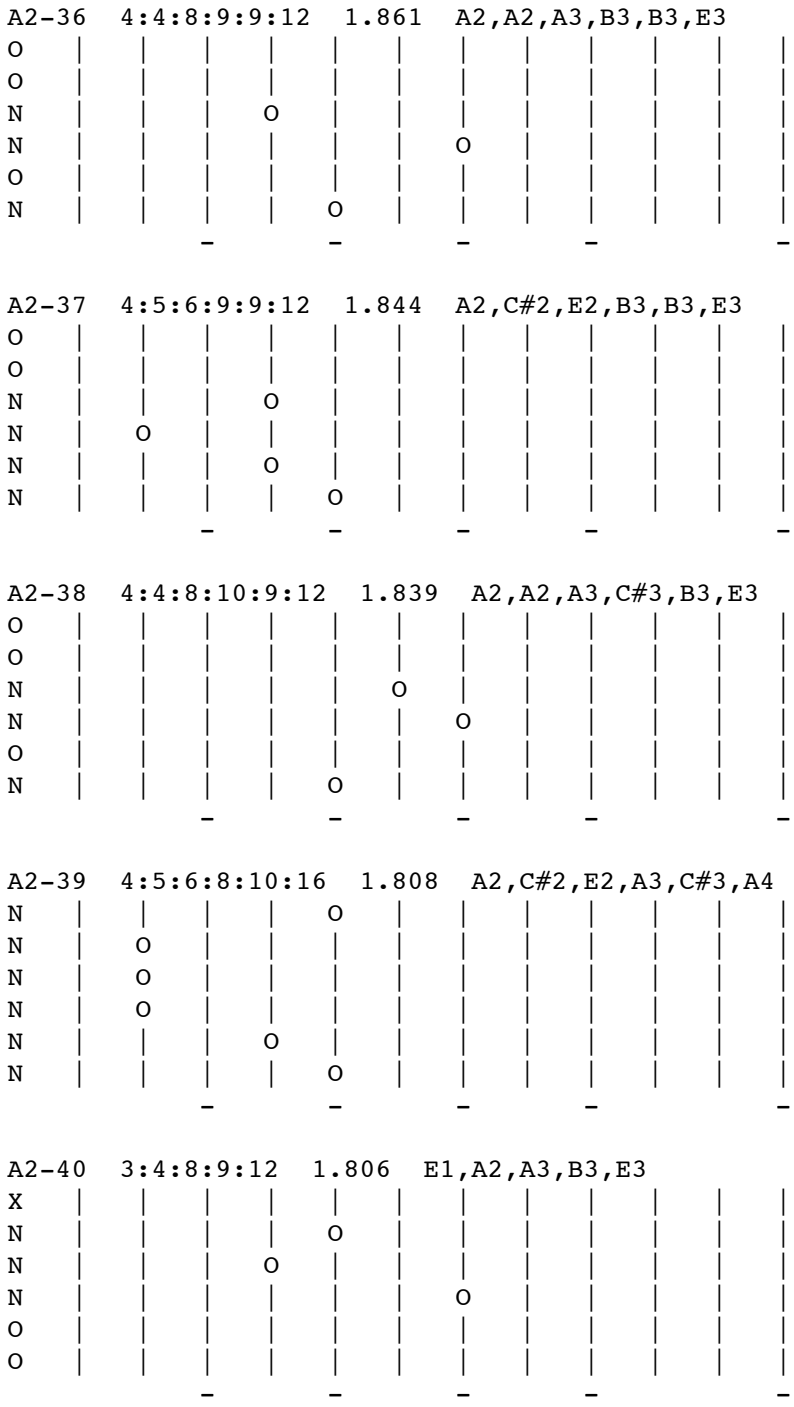
```
A2-31  3:4:9:12:9:12  1.944  E1,A2,B3,E3,B3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

A2-32  3:4:6:9:10  1.922  E1,A2,E2,B3,C#3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

A2-33  3:4:10:12:9:12  1.922  E1,A2,C#3,E3,B3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   |   |   O   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

A2-34  3:4:6:8:12  1.917  E1,A2,E2,A3,E3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

A2-35  3:4:9:10:15:12  1.889  A2,B3,C#3,G#3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```


A2-36 4:4:8:9:9:12 1.861 A2,A2,A3,B3,B3,E3
A2-37 4:5:6:9:9:12 1.844 A2,C#2,E2,B3,B3,E3
A2-38 4:4:8:10:9:12 1.839 A2,A2,A3,C#3,B3,E3
A2-39 4:5:6:8:10:16 1.808 A2,C#2,E2,A3,C#3,A4
A2-40 3:4:8:9:12 1.806 E1,A2,A3,B3,E3

```
A2-41  4:4:8:9:12:12  1.806  A2,A2,A3,B3,E3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
                -       -       -       -           -

A2-42  3:4:8:10:12  1.783  E1,A2,A3,C#3,E3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
                -       -       -       -           -

A2-43  4:5:8:10:9:12  1.739  A2,C#2,A3,C#3,B3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
                -       -       -       -           -

A2-44  4:6:8:9:9:12  1.694  A2,E2,A3,B3,B3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
                -       -       -       -           -

A2-45  4:5:6:8:10  1.683  A2,C#2,E2,A3,C#3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
                -       -       -       -           -
```

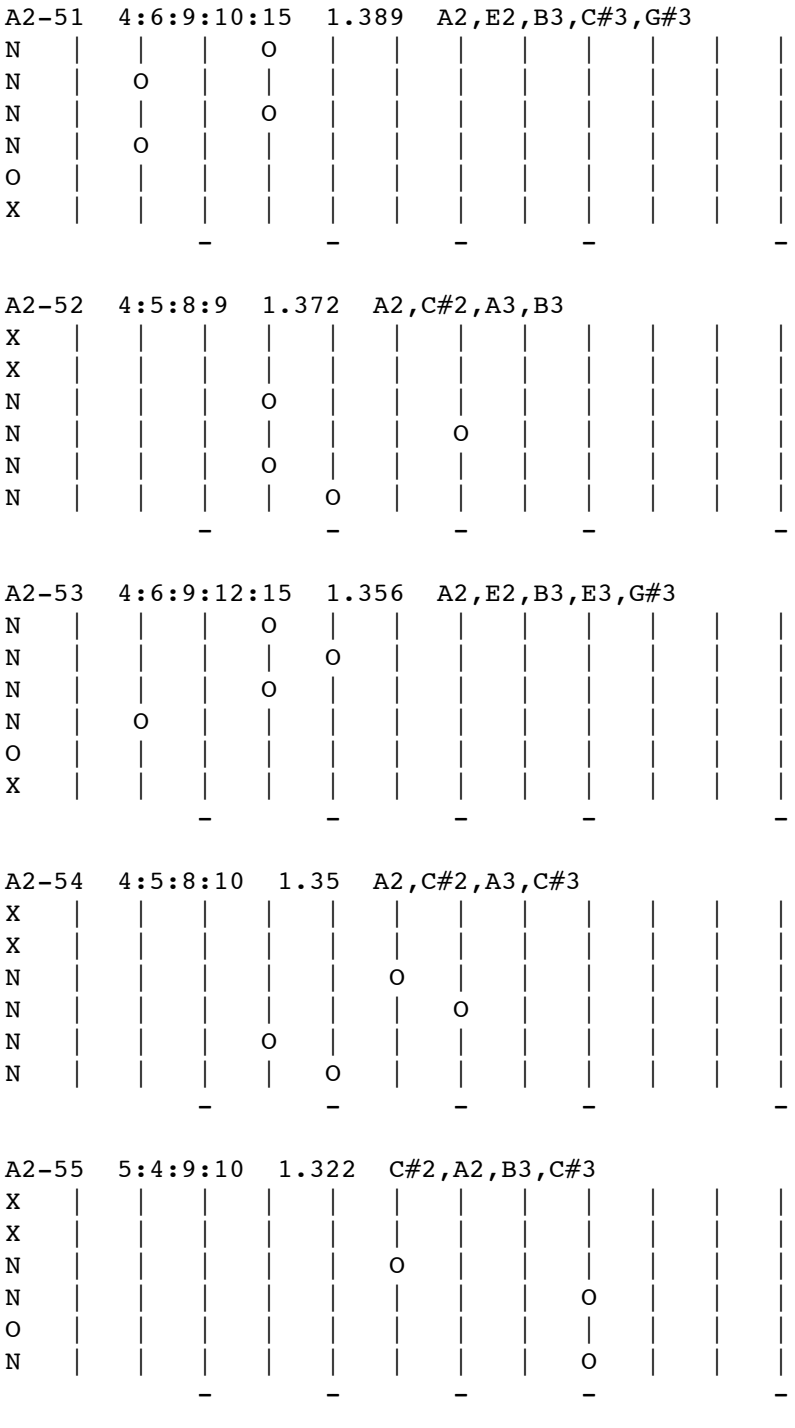
```
A2-46  4:4:8:10:9  1.672  A2,A2,A3,C#3,B3
X   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
            -       -       -       -           -

A2-47  4:6:8:10:9:12  1.672  A2,E2,A3,C#3,B3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
            -       -       -       -           -

A2-48  4:5:6:8  1.483  A2,C#2,E2,A3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
            -       -       -       -           -

A2-49  4:4:8:9  1.472  A2,A2,A3,B3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
            -       -       -       -           -

A2-50  4:5:6:9  1.456  A2,C#2,E2,B3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
            -       -       -       -           -
```


A2-51 4:6:9:10:15 1.389 A2,E2,B3,C#3,G#3
A2-52 4:5:8:9 1.372 A2,C#2,A3,B3
A2-53 4:6:9:12:15 1.356 A2,E2,B3,E3,G#3
A2-54 4:5:8:10 1.35 A2,C#2,A3,C#3
A2-55 5:4:9:10 1.322 C#2,A2,B3,C#3

```
A2-56  5:4:8:12  1.316  C#2,A2,A3,E3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
            -       -       -       -           -

A2-57  4:8:9:12:12  1.306  A2,A3,B3,E3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

A2-58  4:8:12:9:12  1.306  A2,A3,E3,B3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

A2-59  4:6:8:9  1.306  A2,E2,A3,B3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
            -       -       -       -           -

A2-60  5:4:9:12  1.289  C#2,A2,B3,E3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
            -       -       -       -           -
```

```
A2-61  5:4:10:12  1.267  C#2,A2,C#3,E3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   |   |   O   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
            -       -       -       -           -

A2-62  4:6:9:10  1.256  A2,E2,B3,C#3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

A2-63  4:6:9:12  1.222  A2,E2,B3,E3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

A2-64  4:9:12:15:12  1.189  A2,B3,E3,G#3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

A2-65  4:10:12:15:12  1.167  A2,C#3,E3,G#3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   |   |   O   |
O   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

```
A2-66  4:5:8  1.15  A2,C#2,A3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
            -       -       -       -           -

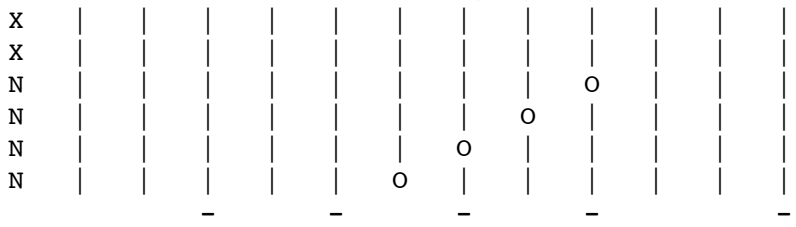
A2-67  4:9:10:15  1.056  A2,B3,C#3,G#3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

A2-68  9:8:18:24:18:24  0.861  B2,A2,B3,E3,B3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
            -       -       -       -           -

A2-69  9:8:18:24:30:24  0.817  B2,A2,B3,E3,G#3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
            -       -       -       -           -

A2-70  8:9:12:18  0.75  A2,B2,E2,B3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
            -       -       -       -           -
```

There are no lush chords on A#2.
This chord is not lush, it is not strongly rooted and
has an overall strength less than 0.75.
20/7 is close to 17/6.



```
B2-1  2:3:4:5:4:8  3.317  B2,F#2,B3,D#3,B3,B4
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
            -       -       -       -           -

B2-2  2:3:4:5:6:8  3.15  B2,F#2,B3,D#3,F#3,B4
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
            -       -       -       -           -

B2-3  2:3:4:5:4  3.067  B2,F#2,B3,D#3,B3
X   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
            -       -       -       -           -

B2-4  2:3:4:4:6  3.0  B2,F#2,B3,B3,F#3
N   |   O   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

B2-5  2:3:4:5:6  2.9  B2,F#2,B3,D#3,F#3
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

```
B2-6  2:3:4:5:6  2.9  B2,F#2,B3,D#3,F#3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
            -       -       -       -           -

B2-7  2:3:4:4  B2  2.667  B2,F#2,B3,B3
X   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

B2-8  2:3:4:5  2.567  B2,F#2,B3,D#3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

B2-9  2:3:4:5  2.567  B2,F#2,B3,D#3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
            -       -       -       -           -

B2-10  3:4:6:8:8:12  2.167  F#1,B2,F#2,B3,B3,F#3
N   |   O   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

```
B2-11  3:4:6:8:10:12  2.117  F#1,B2,F#2,B3,D#3,F#3
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

B2-12  3:4:5:8:8  2.067  F#1,B2,D#2,B3,B3
X   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

B2-13  3:4:5:8:10  2.017  F#1,B2,D#2,B3,D#3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

B2-14  3:4:6:8:8  2.0  F#1,B2,F#2,B3,B3
X   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

B2-15  3:4:6:8:10  1.95  F#1,B2,F#2,B3,D#3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

```
B2-16  3:4:5:8  1.817  F#1,B2,D#2,B3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

B2-17  4:5:6:8:10:16  1.808  B2,D#2,F#2,B3,D#3,B4
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
            -       -       -       -           -

B2-18  3:4:6:8  1.75  F#1,B2,F#2,B3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

B2-19  4:5:6:8:10  1.683  B2,D#2,F#2,B3,D#3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
            -       -       -       -           -

B2-20  4:5:6:8:12  1.65  B2,D#2,F#2,B3,F#3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
            -       -       -       -           -
```

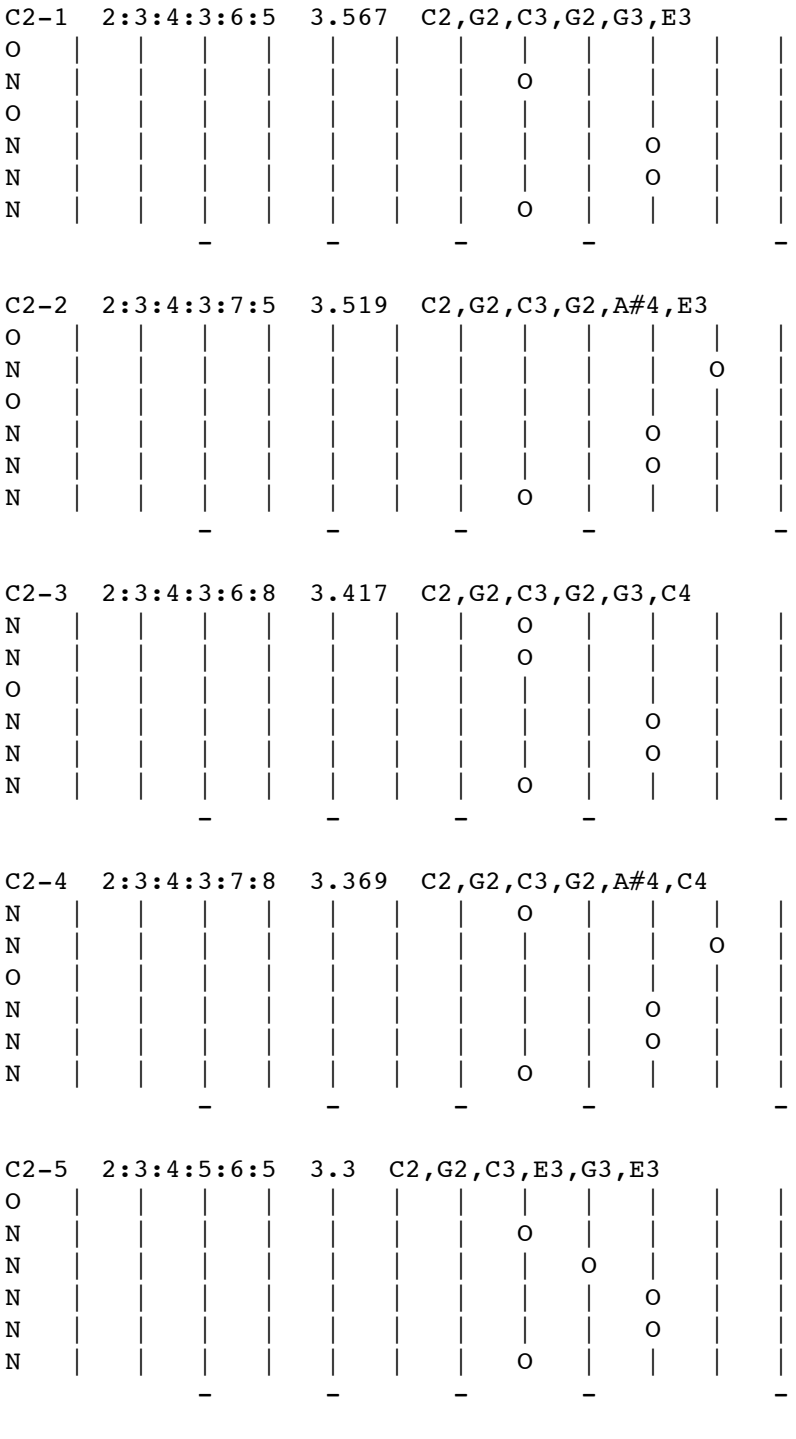
```
B2-21  4:5:8:10:8  1.6  B2,D#2,B3,D#3,B3
X   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
            -       -       -       -           -

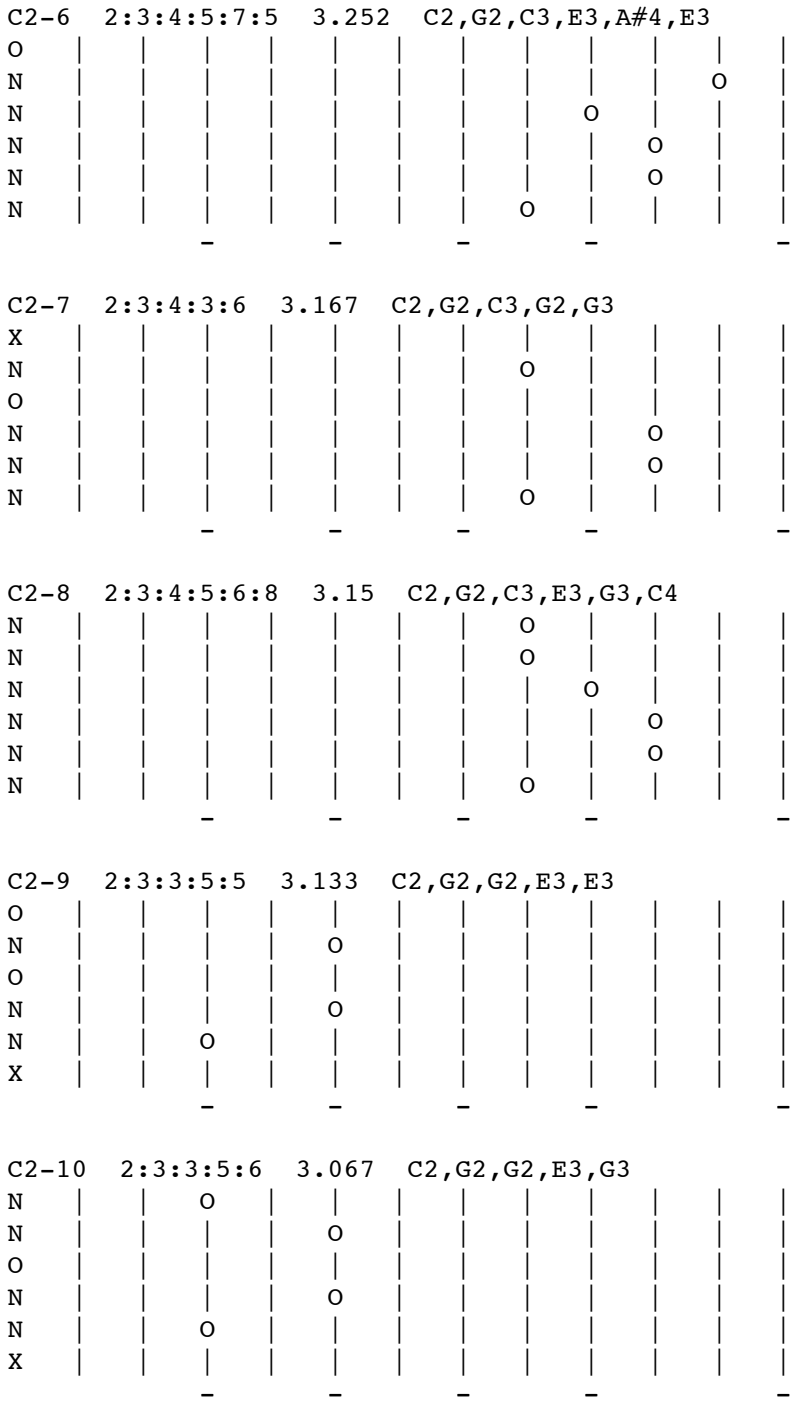
B2-22  4:5:6:8  1.483  B2,D#2,F#2,B3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
            -       -       -       -           -

B2-23  4:5:8:8  1.4  B2,D#2,B3,B3
X   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

B2-24  4:5:8:10  1.35  B2,D#2,B3,D#3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
            -       -       -       -           -

B2-25  4:5:8:10  1.35  B2,D#2,B3,D#3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```


C2-1 2:3:4:3:6:5 3.567 C2,G2,C3,G2,G3,E3
C2-2 2:3:4:3:7:5 3.519 C2,G2,C3,G2,A#4,E3
C2-3 2:3:4:3:6:8 3.417 C2,G2,C3,G2,G3,C4
C2-4 2:3:4:3:7:8 3.369 C2,G2,C3,G2,A#4,C4
C2-5 2:3:4:5:6:5 3.3 C2,G2,C3,E3,G3,E3


C2-6 2:3:4:5:7:5 3.252 C2,G2,C3,E3,A#4,E3
C2-7 2:3:4:3:6 3.167 C2,G2,C3,G2,G3
C2-8 2:3:4:5:6:8 3.15 C2,G2,C3,E3,G3,C4
C2-9 2:3:3:5:5 3.133 C2,G2,G2,E3,E3
C2-10 2:3:3:5:6 3.067 C2,G2,G2,E3,G3

```
C2-11  2:3:3:5:7  3.019  C2,G2,G2,E3,A#4
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C2-12  2:3:4:5:5  2.967  C2,G2,C3,E3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C2-13  2:3:4:5:6  2.9  C2,G2,C3,E3,G3
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C2-14  2:3:4:5:6  2.9  C2,G2,C3,E3,G3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
            -       -       -       -           -

C2-15  2:3:4:5:7  2.852  C2,G2,C3,E3,A#4
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

```
C2-16  2:3:4:5:7  2.852  C2,G2,C3,E3,A#4
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   |   O   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
            -       -       -       -           -

C2-17  2:3:4:3  2.833  C2,G2,C3,G2
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
            -       -       -       -           -

C2-18  2:3:3:5  2.733  C2,G2,G2,E3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C2-19  2:3:4:5  2.567  C2,G2,C3,E3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
            -       -       -       -           -

C2-20  2:3:4:5  2.567  C2,G2,C3,E3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

```
C2-21  3:4:5:6:8:10  2.35  G1,C2,E2,G2,C3,E3
O   |    |    |    |    |    |    |    |    |    |    |    |
N   O    |    |    |    |    |    |    |    |    |    |    |
O   |    |    |    |    |    |    |    |    |    |    |    |
N   |    O    |    |    |    |    |    |    |    |    |    |
N   |    |    O    |    |    |    |    |    |    |    |    |
N   |    |    O    |    |    |    |    |    |    |    |    |
                -         -         -         -              -

C2-22  3:4:5:6:9:10  2.322  G1,C2,E2,G2,D3,E3
O   |    |    |    |    |    |    |    |    |    |    |    |
N   |    |    O    |    |    |    |    |    |    |    |    |
O   |    |    |    |    |    |    |    |    |    |    |    |
N   |    O    |    |    |    |    |    |    |    |    |    |
N   |    |    O    |    |    |    |    |    |    |    |    |
N   |    |    O    |    |    |    |    |    |    |    |    |
                -         -         -         -              -

C2-23  3:4:5:6:9:12  2.289  G1,C2,E2,G2,D3,G3
N   |    |    O    |    |    |    |    |    |    |    |    |
N   |    |    O    |    |    |    |    |    |    |    |    |
O   |    |    |    |    |    |    |    |    |    |    |    |
N   |    O    |    |    |    |    |    |    |    |    |    |
N   |    |    O    |    |    |    |    |    |    |    |    |
N   |    |    O    |    |    |    |    |    |    |    |    |
                -         -         -         -              -

C2-24  3:4:5:7:9:12  2.241  G1,C2,E2,A#3,D3,G3
N   |    |    O    |    |    |    |    |    |    |    |    |
N   |    |    O    |    |    |    |    |    |    |    |    |
N   |    |    O    |    |    |    |    |    |    |    |    |
N   |    O    |    |    |    |    |    |    |    |    |    |
N   |    |    O    |    |    |    |    |    |    |    |    |
N   |    |    O    |    |    |    |    |    |    |    |    |
                -         -         -         -              -

C2-25  3:4:6:6:10:10  2.233  G1,C2,G2,G2,E3,E3
O   |    |    |    |    |    |    |    |    |    |    |    |
N   |    |    |    |    O    |    |    |    |    |    |    |
O   |    |    |    |    |    |    |    |    |    |    |    |
N   |    |    |    |    O    |    |    |    |    |    |    |
N   |    |    O    |    |    |    |    |    |    |    |    |
N   |    |    O    |    |    |    |    |    |    |    |    |
                -         -         -         -              -
```

```
C2-26  3:4:6:7:9:10  2.208  G1,C2,G2,A#3,D3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C2-27  3:4:6:6:10:12  2.2  G1,C2,G2,G2,E3,G3
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C2-28  3:4:6:6:10:12  2.2  G1,C2,G2,G2,E3,G3
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C2-29  3:4:6:7:10:10  2.186  G1,C2,G2,A#3,E3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C2-30  3:4:6:7:9:12  2.174  G1,C2,G2,A#3,D3,G3
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

```
C2-31  3:4:6:8:9:10  2.172  G1,C2,G2,C3,D3,E3
O   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
            -       -       -       -           -

C2-32  3:4:6:7:10:12  2.152  G1,C2,G2,A#3,E3,G3
N   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
            -       -       -       -           -

C2-33  3:4:6:8:10:10  2.15  G1,C2,G2,C3,E3,E3
O   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
            -       -       -       -           -

C2-34  3:4:6:8:9:12  2.139  G1,C2,G2,C3,D3,G3
N   |   |   O   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
            -       -       -       -           -

C2-35  3:4:5:6:9  2.122  G1,C2,E2,G2,D3
X   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

```
C2-36  3:4:6:8:10:12  2.117  G1,C2,G2,C3,E3,G3
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C2-37  3:4:5:6:10  2.1  G1,C2,E2,G2,E3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C2-38  3:4:6:6:9  2.056  G1,C2,G2,G2,D3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C2-39  3:4:6:6:10  2.033  G1,C2,G2,G2,E3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C2-40  3:4:6:7:9  2.008  G1,C2,G2,A#3,D3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

```
C2-41  3:4:6:7:10  1.986  G1,C2,G2,A#3,E3
X   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
            -       -       -       -           -

C2-42  3:4:6:8:9  1.972  G1,C2,G2,C3,D3
X   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
            -       -       -       -           -

C2-43  4:5:7:6:10:10  1.919  C2,E2,A#3,G2,E3,E3
O   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |
            -       -       -       -           -

C2-44  3:4:5:6  1.9  G1,C2,E2,G2
X   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
            -       -       -       -           -

C2-45  4:5:7:6:12:10  1.886  C2,E2,A#3,G2,G3,E3
O   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |
            -       -       -       -           -
```

```
C2-46  3:4:5:7  1.852  G1,C2,E2,A#3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C2-47  3:4:6:6  1.833  G1,C2,G2,G2
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C2-48  4:5:7:6:12:14  1.829  C2,E2,A#3,G2,G3,A#4
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
            -       -       -       -           -

C2-49  3:4:5:8  1.817  G1,C2,E2,C3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C2-50  4:5:7:6:12:16  1.811  C2,E2,A#3,G2,G3,C4
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
            -       -       -       -           -
```

```
C2-51  4:5:6:8:10:16  1.808  C2,E2,G2,C3,E3,C4
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
            -       -       -       -           -

C2-52  4:6:7:6:14:10  1.795  C2,G2,A#3,G2,A#4,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   |   O   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
            -       -       -       -           -

C2-53  3:4:6:7  1.786  G1,C2,G2,A#3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C2-54  4:5:7:9:12:10  1.775  C2,E2,A#3,D3,G3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
            -       -       -       -           -

C2-55  3:4:6:8  1.75  G1,C2,G2,C3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

```
C2-56  4:5:6:6:12  1.733  C2,E2,G2,G2,G3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
            -       -       -       -           -

C2-57  4:5:7:6:10  1.719  C2,E2,A#3,G2,E3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
            -       -       -       -           -

C2-58  4:5:7:6:12  1.686  C2,E2,A#3,G2,G3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
            -       -       -       -           -

C2-59  4:5:6:8:10  1.683  C2,E2,G2,C3,E3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
            -       -       -       -           -

C2-60  4:5:6:8:10  1.683  C2,E2,G2,C3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

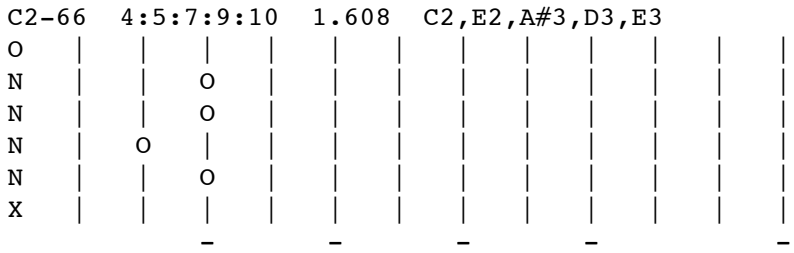
```
C2-61  4:6:7:10:14:10  1.662  C2,G2,A#3,E3,A#4,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   |   O   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
            -       -       -       -           -

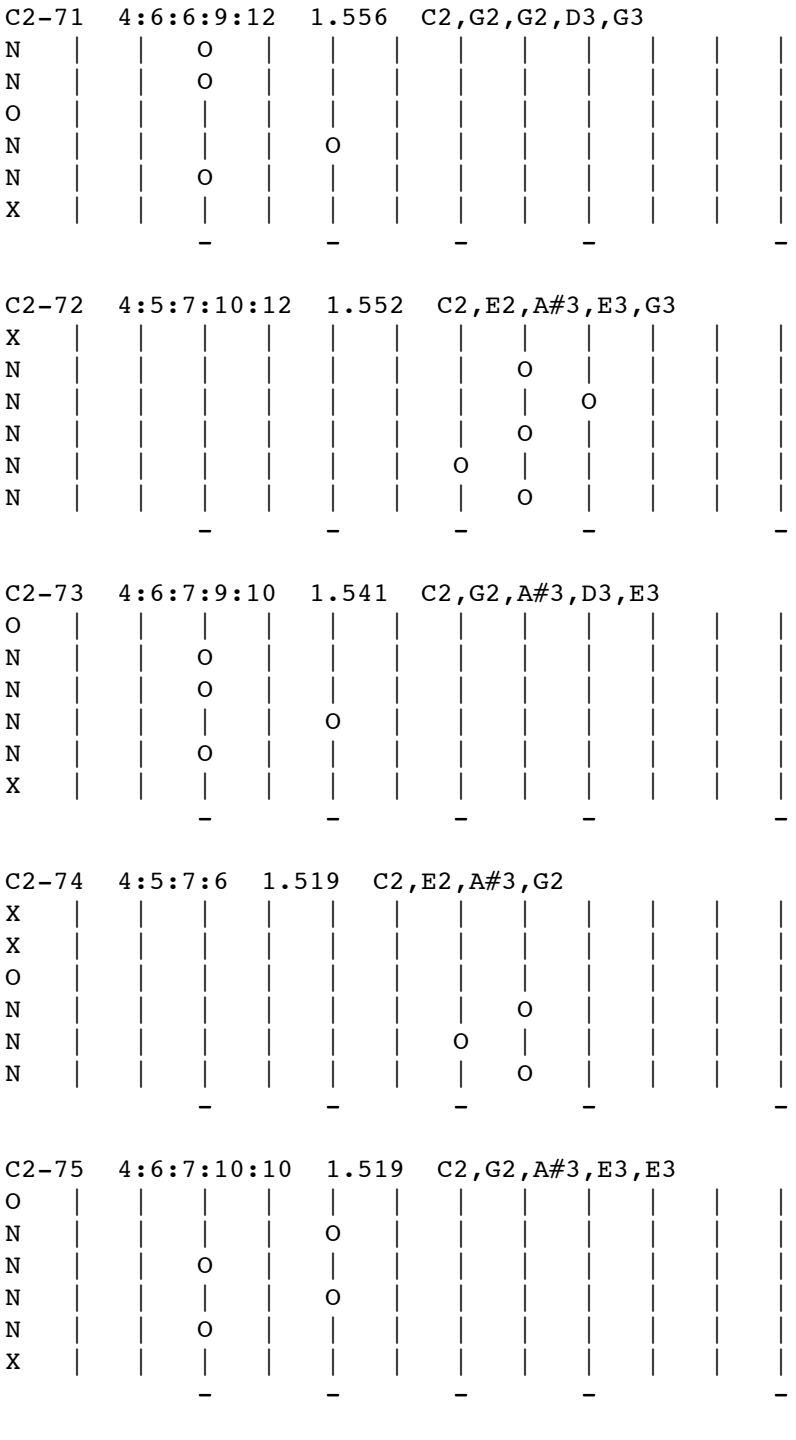
C2-62  4:5:6:9:10  1.656  C2,E2,G2,D3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

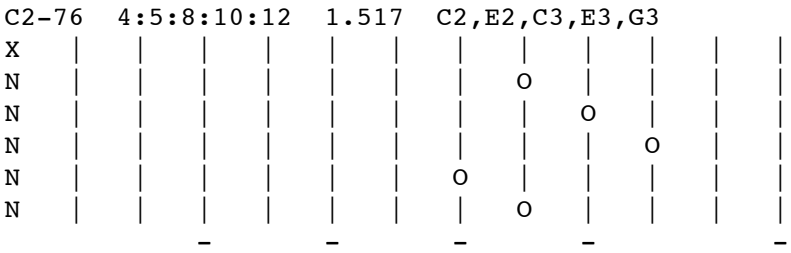
C2-63  4:5:6:8:12  1.65  C2,E2,G2,C3,G3
N   |   |   O   |   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

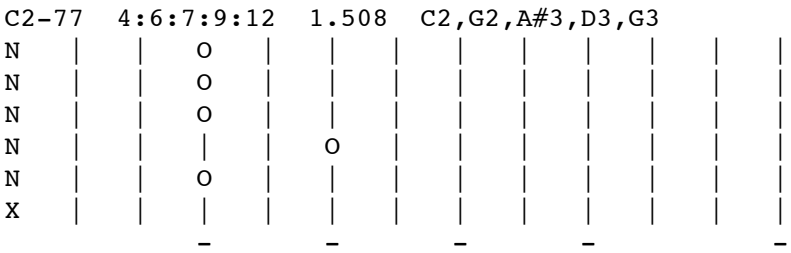
C2-64  4:5:7:8:10  1.636  C2,E2,A#3,C3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

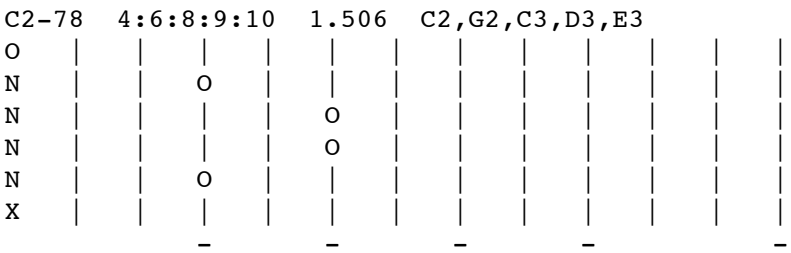
C2-65  4:5:6:9:12  1.622  C2,E2,G2,D3,G3
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

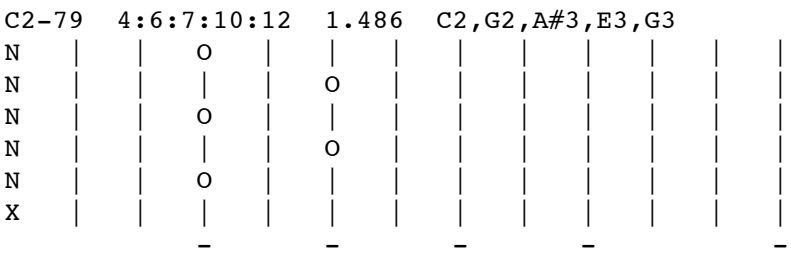

C2-66 4:5:7:9:10 1.608 C2,E2,A#3,D3,E3
O
N
N
N
N
X
C2-67 4:6:6:9:10 1.589 C2,G2,G2,D3,E3
O
N
O
N
N
X
C2-68 4:6:7:10:14:16 1.587 C2,G2,A#3,E3,A#4,C4
N
N
N
N
N
N
C2-69 4:5:7:9:12 1.574 C2,E2,A#3,D3,G3
N
N
N
N
N
X
C2-70 4:5:6:6 1.567 C2,E2,G2,G2
X
X
O
N
N
N

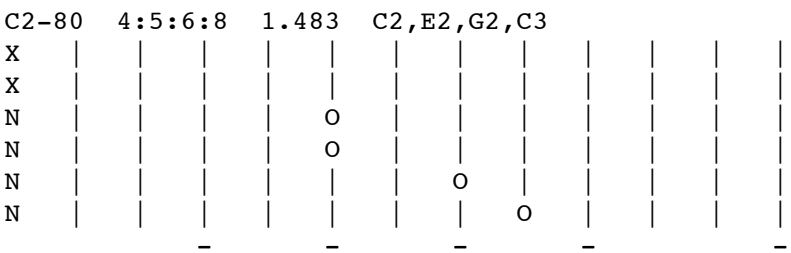

C2-71 4:6:6:9:12 1.556 C2,G2,G2,D3,G3
C2-72 4:5:7:10:12 1.552 C2,E2,A#3,E3,G3
C2-73 4:6:7:9:10 1.541 C2,G2,A#3,D3,E3
C2-74 4:5:7:6 1.519 C2,E2,A#3,G2
C2-75 4:6:7:10:10 1.519 C2,G2,A#3,E3,E3

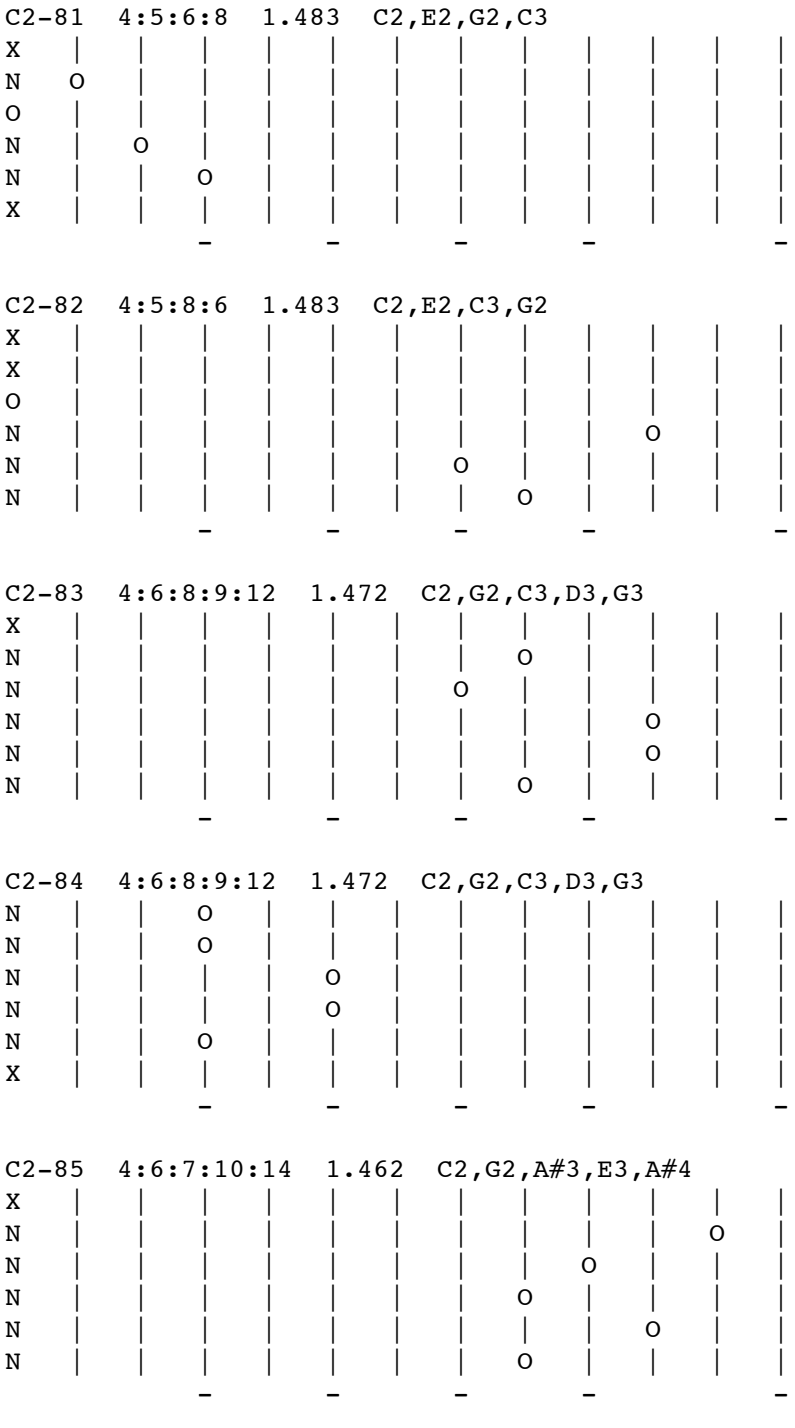

C2-76 4:5:8:10:12 1.517 C2,E2,C3,E3,G3
X | | | | | | | | | | | |
N | | | | | | | O | | | | |
N | | | | | | | | O | | | |
N | | | | | | | | | O | | |
N | | | | | | O | | | | | |
N | | | | | | | O | | | | |
- - - - -


C2-77 4:6:7:9:12 1.508 C2,G2,A#3,D3,G3
N | | O | | | | | | | | |
N | | O | | | | | | | | |
N | | O | | | | | | | | |
N | | | | O | | | | | | |
N | | O | | | | | | | | |
X | | | | | | | | | | |
- - - - -


C2-78 4:6:8:9:10 1.506 C2,G2,C3,D3,E3
O | | | | | | | | | | |
N | | O | | | | | | | | |
N | | | | O | | | | | | |
N | | | | O | | | | | | |
N | | O | | | | | | | | |
X | | | | | | | | | | |
- - - - -


C2-79 4:6:7:10:12 1.486 C2,G2,A#3,E3,G3
N | | O | | | | | | | | |
N | | | | O | | | | | | |
N | | O | | | | | | | | |
N | | | | O | | | | | | |
N | | O | | | | | | | | |
X | | | | | | | | | | |
- - - - -


C2-80 4:5:6:8 1.483 C2,E2,G2,C3
X | | | | | | | | | | |
X | | | | | | | | | | |
N | | | | O | | | | | | |
N | | | | O | | | | | | |
N | | | | | | O | | | | |
N | | | | | | | O | | | |
- - - - -


C2-81 4:5:6:8 1.483 C2,E2,G2,C3
C2-82 4:5:8:6 1.483 C2,E2,C3,G2
C2-83 4:6:8:9:12 1.472 C2,G2,C3,D3,G3
C2-84 4:6:8:9:12 1.472 C2,G2,C3,D3,G3
C2-85 4:6:7:10:14 1.462 C2,G2,A#3,E3,A#4

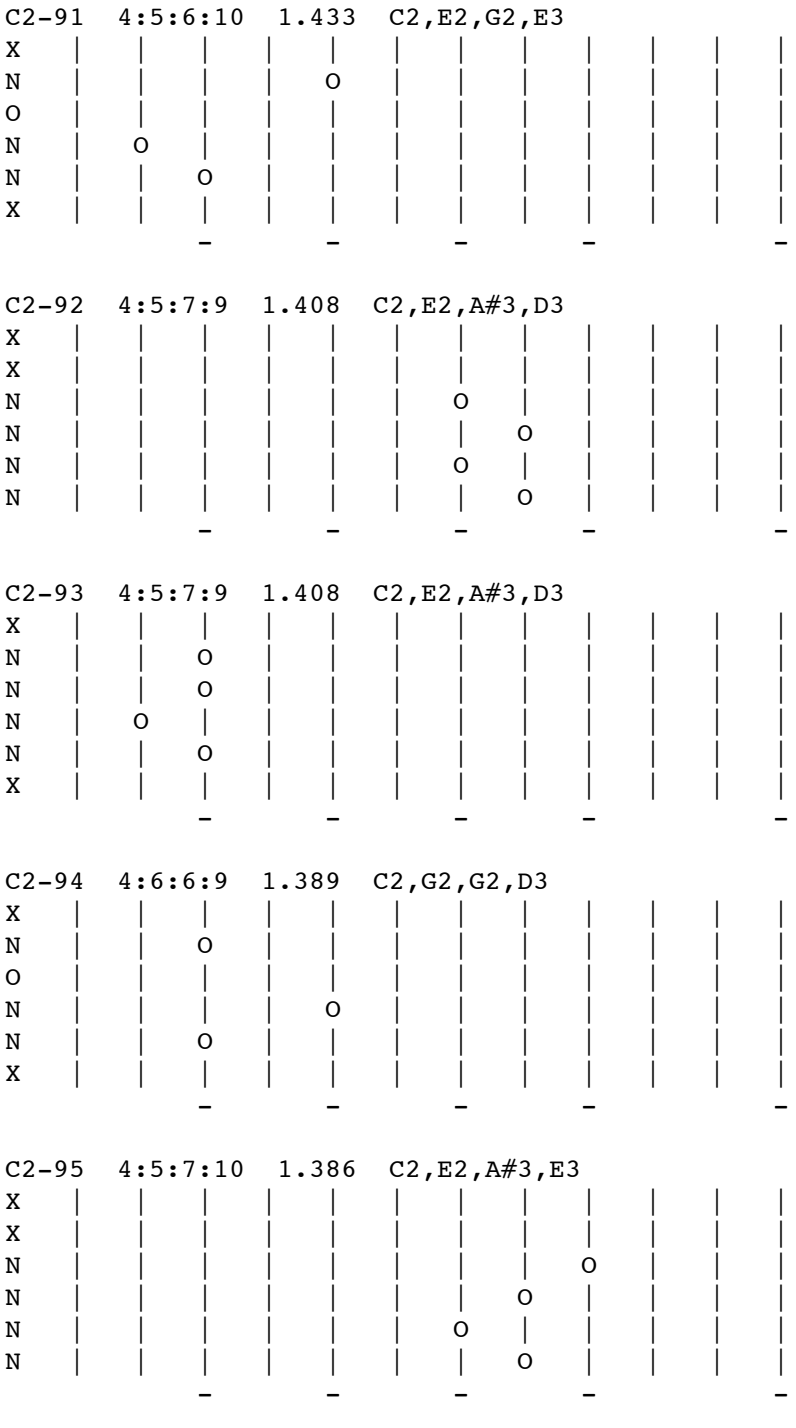
```
C2-86  4:6:7:10:14  1.462  C2,G2,A#3,E3,A#4
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C2-87  4:5:6:9  1.456  C2,E2,G2,D3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C2-88  4:6:7:6  1.452  C2,G2,A#3,G2
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
            -       -       -       -           -

C2-89  4:5:7:8  1.436  C2,E2,A#3,C3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
            -       -       -       -           -

C2-90  4:5:7:8  1.436  C2,E2,A#3,C3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```


C2-91 4:5:6:10 1.433 C2,E2,G2,E3
C2-92 4:5:7:9 1.408 C2,E2,A#3,D3
C2-93 4:5:7:9 1.408 C2,E2,A#3,D3
C2-94 4:6:6:9 1.389 C2,G2,G2,D3
C2-95 4:5:7:10 1.386 C2,E2,A#3,E3

```
C2-96  4:5:8:9  1.372  C2,E2,C3,D3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
            -       -       -       -           -

C2-97  4:5:8:10  1.35  C2,E2,C3,E3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
            -       -       -       -           -

C2-98  4:6:7:9  1.341  C2,G2,A#3,D3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C2-99  4:6:7:10  1.319  C2,G2,A#3,E3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
            -       -       -       -           -

C2-100  4:6:7:10  1.319  C2,G2,A#3,E3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

```
C2-101  4:6:8:9  1.306  C2,G2,C3,D3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C2-102  4:6:8:9  1.306  C2,G2,C3,D3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
            -       -       -       -           -

C2-103  5:8:10:12:16:20  1.242  E1,C2,E2,G2,C3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C2-104  5:8:10:12:18:20  1.228  E1,C2,E2,G2,D3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C2-105  5:8:10:14:16:20  1.218  E1,C2,E2,A#3,C3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

```
C2-106  5:8:10:14:18:20  1.204  E1,C2,E2,A#3,D3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C2-107  5:8:12:12:18:20  1.194  E1,C2,G2,G2,D3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C2-108  5:8:12:12:20:20  1.183  E1,C2,G2,G2,E3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C2-109  6:8:9:12:18:24  1.167  G1,C2,D2,G2,D3,G3
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C2-110  5:8:12:14:20:20  1.16  E1,C2,G2,A#3,E3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

```
C2-111  5:8:12:16:18:20  1.153  E1,C2,G2,C3,D3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C2-112  4:5:8  1.15  C2,E2,C3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
            -       -       -       -           -

C2-113  5:8:9:12:18  1.15  E1,C2,D2,G2,D3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C2-114  5:8:12:16:20:20  1.142  E1,C2,G2,C3,E3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C2-115  5:8:10:12:18  1.128  E1,C2,E2,G2,D3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

```
C2-116  5:8:10:14:16  1.118  E1,C2,E2,A#3,C3
X   |   |   |   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C2-117  5:8:10:14:18  1.104  E1,C2,E2,A#3,D3
X   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C2-118  5:8:12:12:18  1.094  E1,C2,G2,G2,D3
X   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C2-119  6:8:9:12:18  1.083  G1,C2,D2,G2,D3
X   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
            -       -       -       -           -

C2-120  5:8:12:14:18  1.071  E1,C2,G2,A#3,D3
X   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

```
C2-121  5:8:12:14:20  1.059  E1,C2,G2,A#3,E3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C2-122  5:8:12:16:18  1.053  E1,C2,G2,C3,D3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C2-123  5:8:9:12  1.039  E1,C2,D2,G2
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C2-124  5:8:10:12  1.017  E1,C2,E2,G2
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C2-125  5:8:10:14  0.993   E1,C2,E2,A#3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

```
C2-126  8:10:9:12:24:30  0.989  C2,E2,D2,G2,G3,B4
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
            -       -       -       -           -

C2-127  5:8:12:12  0.983   E1,C2,G2,G2
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C2-128  5:8:10:16  0.975   E1,C2,E2,C3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C2-129  6:8:9:12  0.972   G1,C2,D2,G2
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C2-130  5:8:12:14  0.96   E1,C2,G2,A#3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

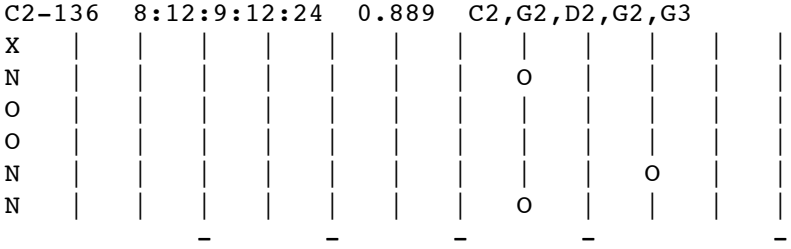
```
C2-131  8:9:9:12:24  0.944  C2,D2,D2,G2,G3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
            -       -       -       -           -

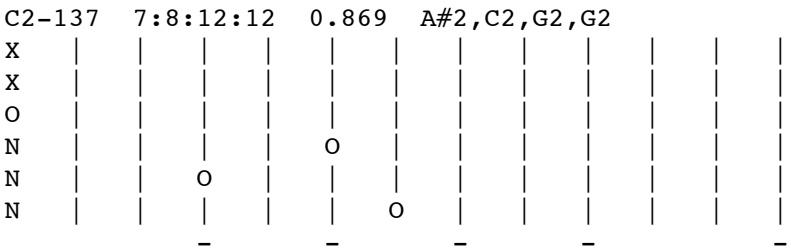
C2-132  5:8:12:16  0.942  E1,C2,G2,C3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

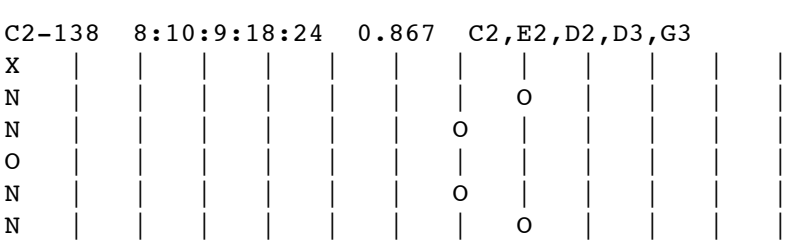
C2-133  7:8:9:12  0.925  A#2,C2,D2,G2
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
            -       -       -       -           -

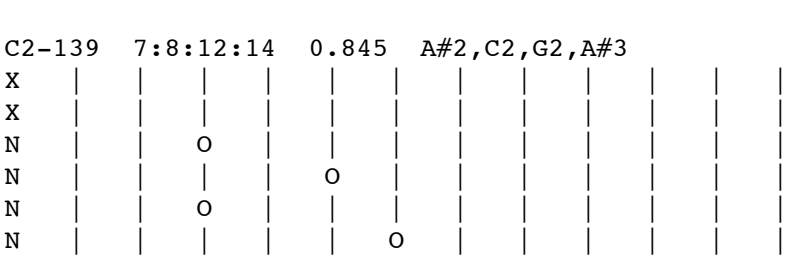
C2-134  8:10:9:12:24  0.922  C2,E2,D2,G2,G3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
            -       -       -       -           -

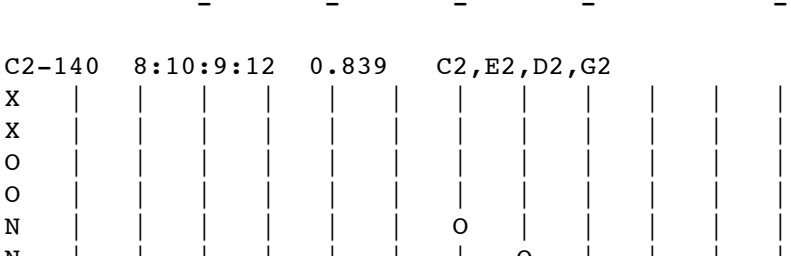
C2-135  8:9:9:18:24  0.889  C2,D2,D2,D3,G3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
            -       -       -       -           -
```


C2-136 8:12:9:12:24 0.889 C2,G2,D2,G2,G3
X | | | | | | | | | | | |
N | | | | | | | O | | | | |
O | | | | | | | | | | | |
O | | | | | | | | | | | |
N | | | | | | | | | O | | |
N | | | | | | | O | | | | |
- - - - -


C2-137 7:8:12:12 0.869 A#2,C2,G2,G2
X | | | | | | | | | | | |
X | | | | | | | | | | | |
O | | | | | | | | | | | |
N | | | | O | | | | | | | |
N | | O | | | | | | | | | |
N | | | | | O | | | | | | |
- - - - -


C2-138 8:10:9:18:24 0.867 C2,E2,D2,D3,G3
X | | | | | | | | | | | |
N | | | | | | | O | | | | |
N | | | | | | O | | | | | |
O | | | | | | | | | | | |
N | | | | | | O | | | | | |
N | | | | | | | O | | | | |
- - - - -


C2-139 7:8:12:14 0.845 A#2,C2,G2,A#3
X | | | | | | | | | | | |
X | | | | | | | | | | | |
N | | O | | | | | | | | | |
N | | | | O | | | | | | | |
N | | O | | | | | | | | | |
N | | | | | O | | | | | | |
- - - - -


C2-140 8:10:9:12 0.839 C2,E2,D2,G2
X | | | | | | | | | | | |
X | | | | | | | | | | | |
O | | | | | | | | | | | |
O | | | | | | | | | | | |
N | | | | | | | O | | | | |
N | | | | | | | | O | | | |
- - - - -

```
C2-141  8:9:12:18:24  0.833  C2,D2,G2,D3,G3
X   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |
            -       -       -       -       -

C2-142  8:9:12:18:24  0.833  C2,D2,G2,D3,G3
N   |   |   O   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -       -

C2-143  8:12:9:12  0.806   C2,G2,D2,G2
X   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   O   |   |   |
            -       -       -       -       -

C2-144  8:9:9:18  0.806  C2,D2,D2,D3
X   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |
            -       -       -       -       -

C2-145  8:10:9:18  0.783  C2,E2,D2,D3
X   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |
            -       -       -       -       -
```

```
C2-146  8:9:12:18  0.75  C2,D2,G2,D3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
            -       -       -       -           -

C2-147  8:12:9:18  0.75  C2,G2,D2,D3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
            -       -       -       -           -

C2-148  8:9:12:18  0.75  C2,D2,G2,D3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

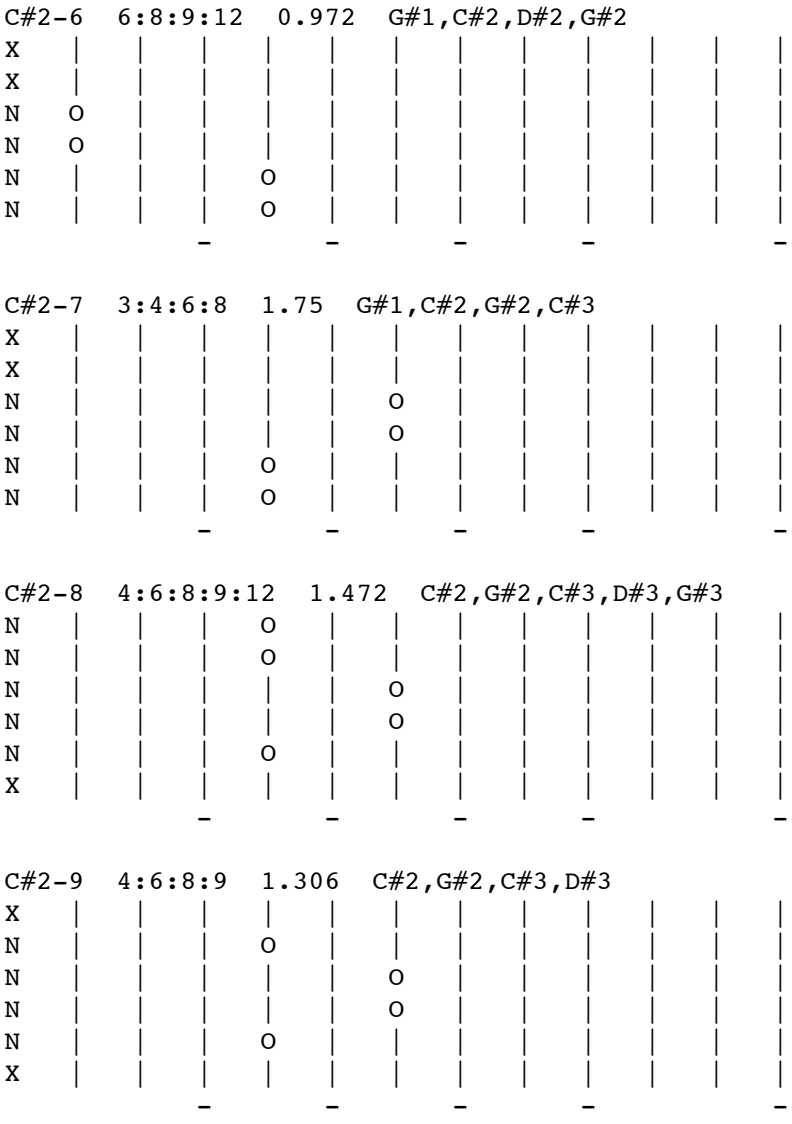
```
C#2-1  2:3:4  2.167  G#1,C#2,G#2,C#3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
                -       -       -       -           -

C#2-2  2:3:4  2.167  C#2,G#2,C#3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
                -       -       -       -           -

C#2-3  3:4:6:8:9:12  2.139  G#1,C#2,G#2,C#3,D#3,G#3
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
                -       -       -       -           -

C#2-4  3:4:6:8:9  1.972  G#1,C#2,G#2,C#3,D#3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
                -       -       -       -           -

C#2-5  4:6:8:9  1.306  C#2,G#2,C#3,D#3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
                -       -       -       -           -
```


C#2-6 6:8:9:12 0.972 G#1,C#2,D#2,G#2
C#2-7 3:4:6:8 1.75 G#1,C#2,G#2,C#3
C#2-8 4:6:8:9:12 1.472 C#2,G#2,C#3,D#3,G#3
C#2-9 4:6:8:9 1.306 C#2,G#2,C#3,D#3

```
D2-1  2:2:4:5  2.9  D2,D2,D3,F#3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -

D2-2  2:4:5:8  2.15  D2,D3,F#3,D4
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -

D2-3  2:4:5  1.9  D2,D3,F#3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -

D2-4  4:5:4:8  1.65  D2,F#2,D2,D3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
              -       -       -       -           -

D2-5  4:5:4:10  1.6  D2,F#2,D2,F#3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   |   O   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
              -       -       -       -           -
```

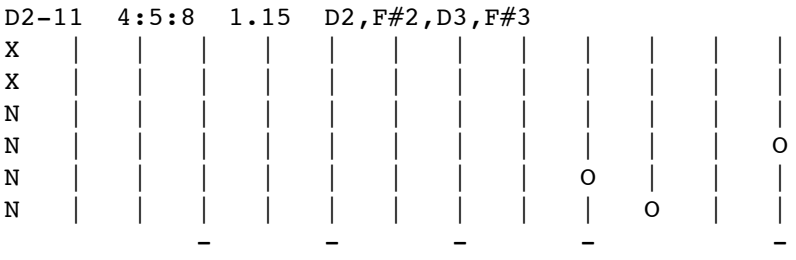
```
D2-6  5:4:8:10:16  1.475  F#2,D2,D3,F#3,D4
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -

D2-7  4:5:8:10  1.35  D2,F#2,D3,F#3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   |   O   |
N   |   |   |   |   |   |   |   |   |   |   |   O
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
              -       -       -       -           -

D2-8  4:5:8:10  1.35  D2,F#2,D3,F#3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -

D2-9  5:4:8:10  1.35  F#2,D2,D3,F#3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -

D2-10  4:5:8  1.15  D2,F#2,D3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -
```


D2-11 4:5:8 1.15 D2,F#2,D3,F#3
X
X
N
N
N
N
O
O

```
D#2-1  2:3:4  2.167  D#2,A#3,D#3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

D#2-2  2:3:4  2.167  D#2,A#3,D#3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

D#2-3  3:4:6:8  1.75  A#2,D#2,A#3,D#3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
            -       -       -       -           -
```

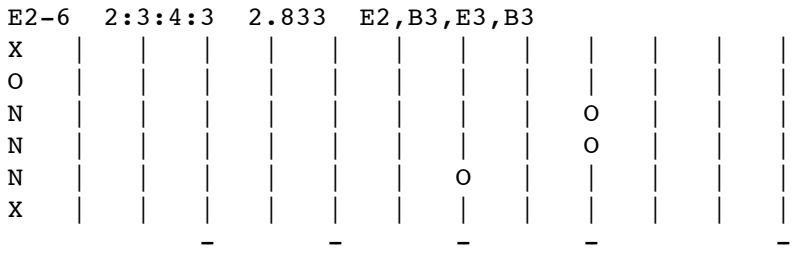
```
E2-1  2:3:4:3:4  3.333  E2,B3,E3,B3,E3
O   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -       -

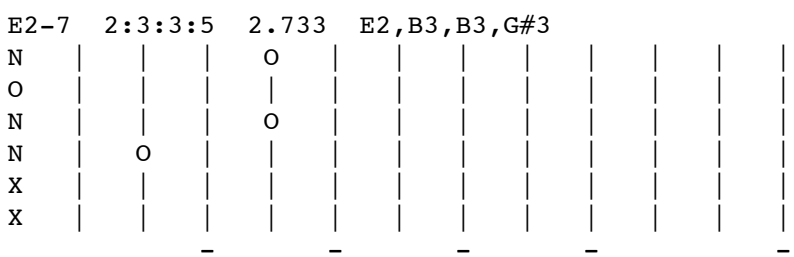
E2-2  2:3:4:3:6  3.167  E2,B3,E3,B3,B4
N   |   |   |   |   |   |   O   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -       -

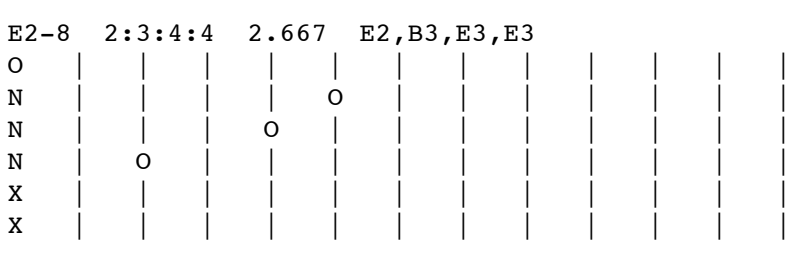
E2-3  2:3:4:5:4  3.067  E2,B3,E3,G#3,E3
O   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -       -

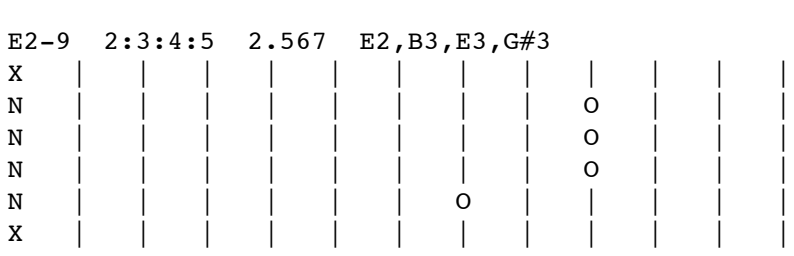
E2-4  2:3:4:5:6  2.9  E2,B3,E3,G#3,B4
N   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -       -

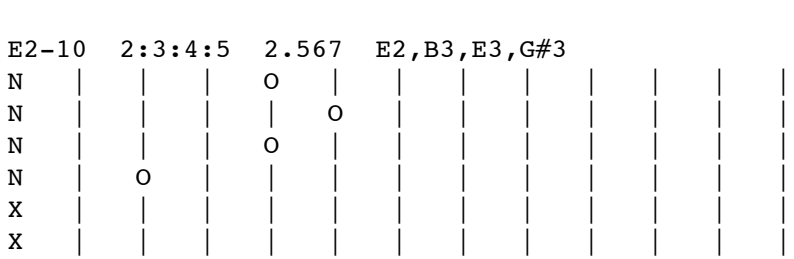
E2-5  2:3:3:4  2.833  E2,B3,B3,E3
O   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -       -
```


E2-6 2:3:4:3 2.833 E2,B3,E3,B3


E2-7 2:3:3:5 2.733 E2,B3,B3,G#3


E2-8 2:3:4:4 2.667 E2,B3,E3,E3


E2-9 2:3:4:5 2.567 E2,B3,E3,G#3


E2-10 2:3:4:5 2.567 E2,B3,E3,G#3

```
E2-11  3:4:5:6:6:8  2.483  B2,E2,G#2,B3,B3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
            -       -       -       -           -

E2-12  3:4:5:8:6:8  2.4  B2,E2,G#2,E3,B3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
            -       -       -       -           -

E2-13  3:4:6:8:6:8  2.333  B2,E2,B3,E3,B3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
            -       -       -       -           -

E2-14  3:4:6:8:6:12  2.25  B2,E2,B3,E3,B3,B4
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
            -       -       -       -           -

E2-15  3:4:6:8:9:8  2.222  B2,E2,B3,E3,F#3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
            -       -       -       -           -
```

```
E2-16  3:4:6:8:10:8  2.2  B2,E2,B3,E3,G#3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
            -       -       -       -           -

E2-17  2:3:4  2.167  E2,B3,E3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

E2-18  3:4:5:6:8  2.15  B2,E2,G#2,B3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

E2-19  3:4:5:8:6  2.15  B2,E2,G#2,E3,B3
X   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
            -       -       -       -           -

E2-20  3:4:6:8:9:12  2.139  B2,E2,B3,E3,F#3,B4
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
            -       -       -       -           -
```

```
E2-21  3:4:5:6:9  2.122  B2,E2,G#2,B3,F#3
N   |   O   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

E2-22  3:4:6:8:10:12  2.117  B2,E2,B3,E3,G#3,B4
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
            -       -       -       -           -

E2-23  3:4:6:6:8  2.083  B2,E2,B3,B3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

E2-24  3:4:6:6:10  2.033  B2,E2,B3,B3,G#3
N   |   |   |   O   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

E2-25  3:4:5:8:10  2.017  B2,E2,G#2,E3,G#3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
            -       -       -       -           -
```

```
E2-26  3:4:6:8:8  2.0  B2,E2,B3,E3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

E2-27  3:4:6:8:9  1.972  B2,E2,B3,E3,F#3
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

E2-28  3:4:6:8:10  1.95  B2,E2,B3,E3,G#3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
            -       -       -       -           -

E2-29  3:4:6:8:10  1.95  B2,E2,B3,E3,G#3
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

E2-30  3:4:5:6  1.9p  B2,E2,G#2,B3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
            -       -       -       -           -
```

```
E2-31  4:5:6:6:8  1.817  E2,G#2,B3,B3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -

E2-32  3:4:6:8  1.75  B2,E2,B3,E3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -

E2-33  4:5:6:8:8  1.733  E2,G#2,B3,E3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -

E2-34  4:5:8:6:8  1.733  E2,G#2,E3,B3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -

E2-35  4:5:6:6:12  1.733  E2,G#2,B3,B3,B4
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -
```

```
E2-36  4:5:6:9:8  1.706  E2,G#2,B3,F#3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

E2-37  4:5:6:8:10  1.683  E2,G#2,B3,E3,G#3
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

E2-38  4:5:6:9:10  1.656  E2,G#2,B3,F#3,G#3
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

E2-39  4:5:8:9:8  1.622  E2,G#2,E3,F#3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

E2-40  4:5:8:10:8  1.6  E2,G#2,E3,G#3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

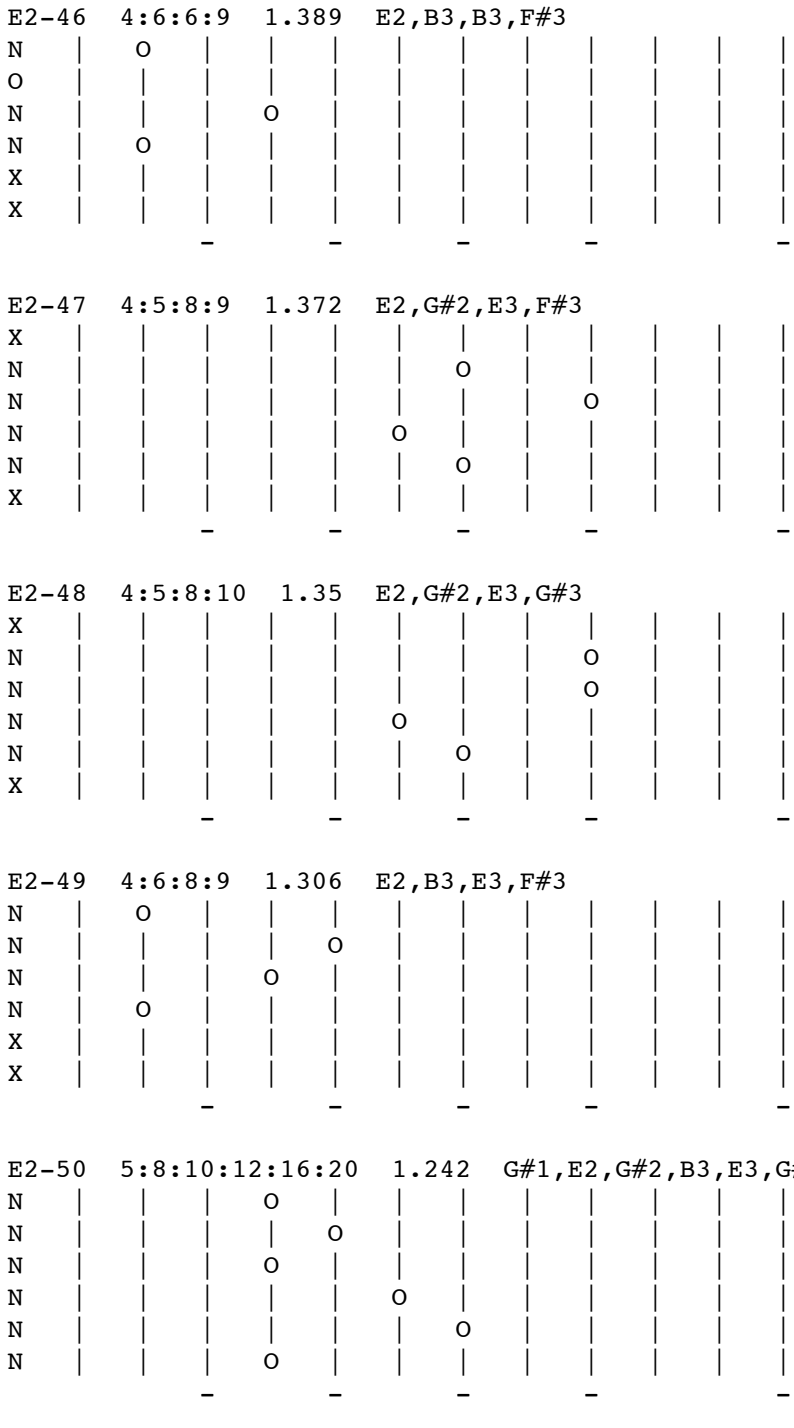
```
E2-41  4:6:8:9:8  1.556  E2,B3,E3,F#3,E3
O   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   O   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -       -

E2-42  4:5:6:8  1.483  E2,G#2,B3,E3
X   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   O   |
N   |   |   |   |   |   |   |   |   |   |   O
            -       -       -       -       -

E2-43  4:5:6:9  1.456  E2,G#2,B3,F#3
X   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -       -

E2-44  5:6:8:12:12:16  1.442  G#1,B2,E2,B3,B3,E3
O   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |
            -       -       -       -       -

E2-45  4:5:6:10  1.433  E2,G#2,B3,G#3
N   |   |   |   O   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -       -
```


E2-46 4:6:6:9 1.389 E2,B3,B3,F#3
E2-47 4:5:8:9 1.372 E2,G#2,E3,F#3
E2-48 4:5:8:10 1.35 E2,G#2,E3,G#3
E2-49 4:6:8:9 1.306 E2,B3,E3,F#3
E2-50 5:8:10:12:16:20 1.242 G#1,E2,G#2,B3,E3,G#3

```
E2-51  5:8:10:12:18:20  1.228  G#1,E2,G#2,B3,F#3,G#3
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
            -       -       -       -           -

E2-52  4:5:8  1.15  E2,G#2,E3,B3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

E2-53  5:6:8:12  1.15  G#1,B2,E2,B3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
            -       -       -       -           -

E2-54  5:8:9:12:18  1.15  G#1,E2,F#2,B3,F#3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
            -       -       -       -           -

E2-55  5:8:10:12:16  1.142  G#1,E2,G#2,B3,E3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

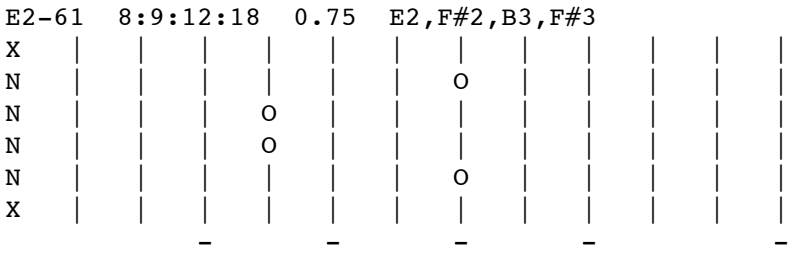
```
E2-56  5:8:10:12:18  1.128  G#1,E2,G#2,B3,F#3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
            -       -       -       -           -

E2-57  5:8:9:12  1.039  G#1,E2,F#2,B3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
            -       -       -       -           -

E2-58  5:8:10:12  1.017  G#1,E2,G#2,B3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
            -       -       -       -           -

E2-59  6:8:9:12  0.972  B2,E2,F#2,B3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
            -       -       -       -           -

E2-60  8:9:12:18  0.75  E2,F#2,B3,F#3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   |   |   O   |
            -       -       -       -           -
```


E2-61 8:9:12:18 0.75 E2,F#2,B3,F#3
X
N
N
N
N
X
O
O
O

```
F2-1  2:3:4:5:6  2.9  F2,C3,F3,A4,C4
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

F2-2  2:3:4:5:7  2.852  F2,C3,F3,A4,D#4
N   |   |   |   |   |   |   |   |   |   |   O   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

F2-3  2:3:4:5  2.567  F2,C3,F3,A4
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

F2-4  2:3:4:5  2.567  F2,C3,F3,A4
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

F2-5  3:4:6:7:9:12  2.174  C2,F2,C3,D#3,G3,C4
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
            -       -       -       -           -
```

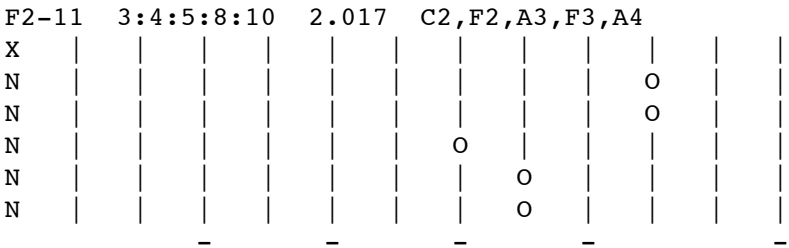
```
F2-6  2:3:4  2.167  F2,C3,F3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
                -       -       -       -           -

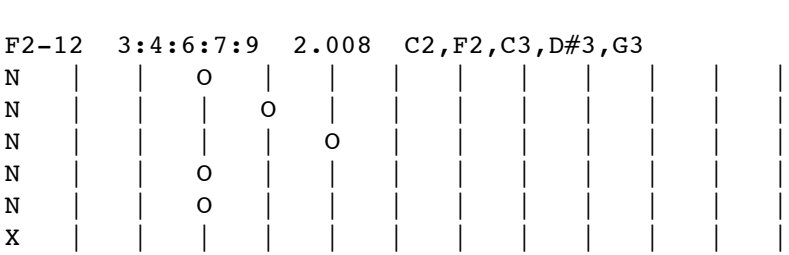
F2-7  3:4:6:7:10:12  2.152  C2,F2,C3,D#3,A4,C4
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
                -       -       -       -           -

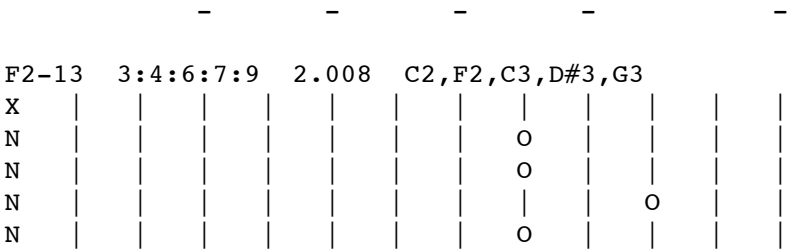
F2-8  3:4:5:6:8  2.15  C2,F2,A3,C3,F3
N   O   |   |   |   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
                -       -       -       -           -

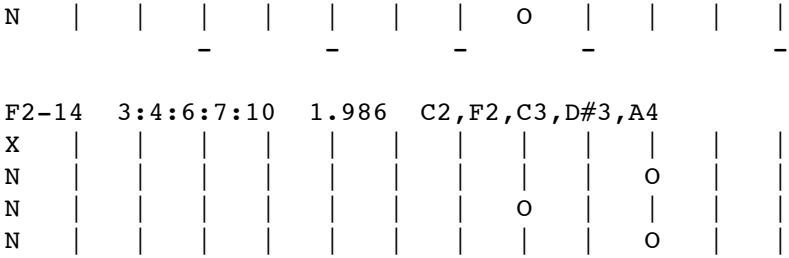
F2-9  3:4:6:8:9:12  2.139  C2,F2,C3,F3,G3,C4
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
                -       -       -       -           -

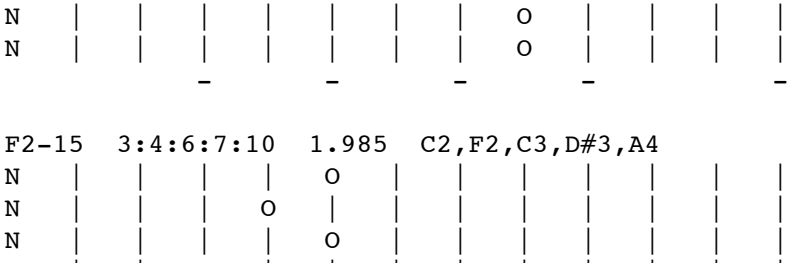
F2-10  3:4:6:8:10:12  2.117  C2,F2,C3,F3,A4,C4
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
                -       -       -       -           -
```


F2-11 3:4:5:8:10 2.017 C2,F2,A3,F3,A4


F2-12 3:4:6:7:9 2.008 C2,F2,C3,D#3,G3


F2-13 3:4:6:7:9 2.008 C2,F2,C3,D#3,G3


F2-14 3:4:6:7:10 1.986 C2,F2,C3,D#3,A4


F2-15 3:4:6:7:10 1.985 C2,F2,C3,D#3,A4

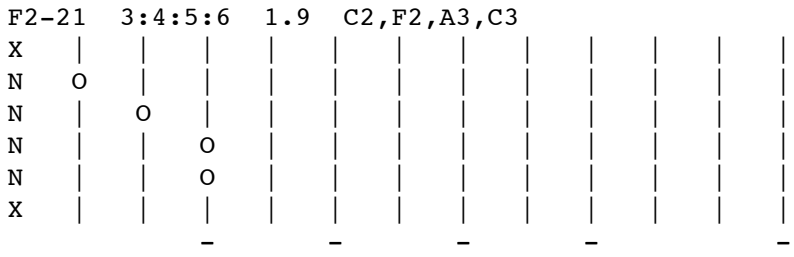
```
F2-16  3:4:6:8:9  1.972  C2,F2,C3,F3,G3
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

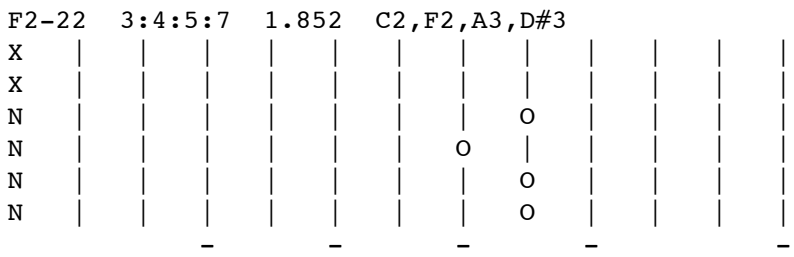
F2-17  3:4:6:8:9  1.972  C2,F2,C3,F3,G3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
            -       -       -       -           -

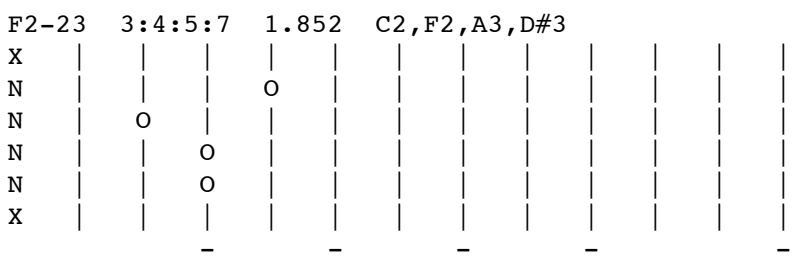
F2-18  3:4:6:8:10  1.95  C2,F2,C3,F3,A4
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

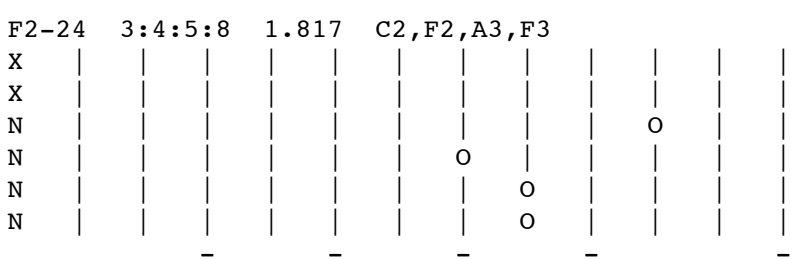
F2-19  3:4:6:8:10  1.95  C2,F2,C3,F3,A4
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
            -       -       -       -           -

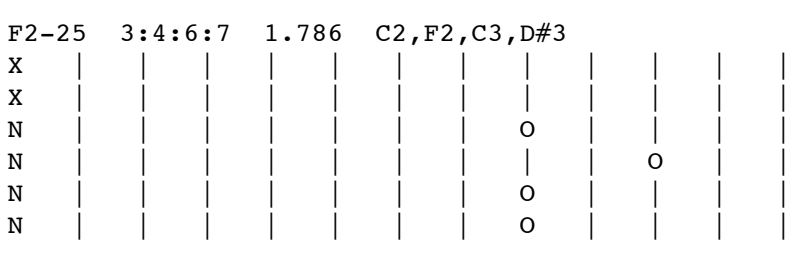
F2-20  3:4:5:6  1.9  C2,F2,A3,C3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
            -       -       -       -           -
```


F2-21 3:4:5:6 1.9 C2,F2,A3,C3
X | | | | | | | | | | | |
N O | | | | | | | | | | |
N | O | | | | | | | | | |
N | | O | | | | | | | | |
N | | O | | | | | | | | |
X | | | | | | | | | | |
- - - - -


F2-22 3:4:5:7 1.852 C2,F2,A3,D#3
X | | | | | | | | | | | |
X | | | | | | | | | | |
N | | | | | | | O | | | |
N | | | | | | O | | | | |
N | | | | | | | O | | | |
N | | | | | | | O | | | |
- - - - -


F2-23 3:4:5:7 1.852 C2,F2,A3,D#3
X | | | | | | | | | | | |
N | | | O | | | | | | | |
N | O | | | | | | | | | |
N | | O | | | | | | | | |
N | | O | | | | | | | | |
X | | | | | | | | | | |
- - - - -


F2-24 3:4:5:8 1.817 C2,F2,A3,F3
X | | | | | | | | | | | |
X | | | | | | | | | | |
N | | | | | | | | | O | |
N | | | | | | | O | | | |
N | | | | | | | | O | | |
N | | | | | | | | O | | |
- - - - -


F2-25 3:4:6:7 1.786 C2,F2,C3,D#3
X | | | | | | | | | | | |
X | | | | | | | | | | |
N | | | | | | | | O | | |
N | | | | | | | | | O | |
N | | | | | | | | O | | |
N | | | | | | | | O | | |
- - - - -

```
F2-26  3:4:6:7  1.786  C2,F2,C3,D#3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

F2-27  3:4:6:8  1.75  C2,F2,C3,F3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
            -       -       -       -           -

F2-28  3:4:6:8  1.75  C2,F2,C3,F3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

F2-29  4:5:6:8:10  1.683  F2,A3,C3,F3,A4
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

F2-30  4:5:6:9:10  1.656  F2,A3,C3,G3,A4
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

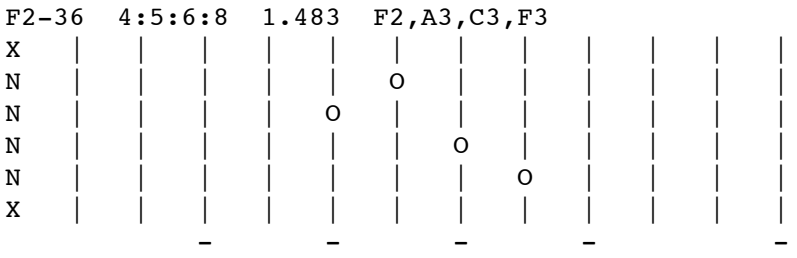
```
F2-31  4:5:6:9:12  1.622  F2,A3,C3,G3,C4
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

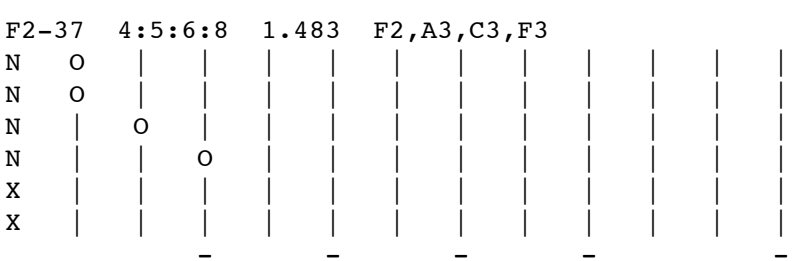
F2-32  4:5:7:9:10  1.608  F2,A3,D#3,G3,A4
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

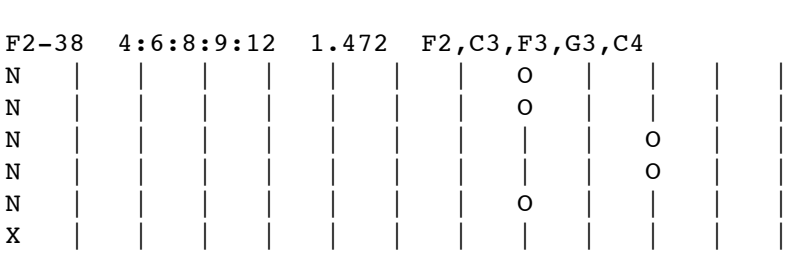
F2-33  4:5:7:9:12  1.574  F2,A3,D#3,G3,C4
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

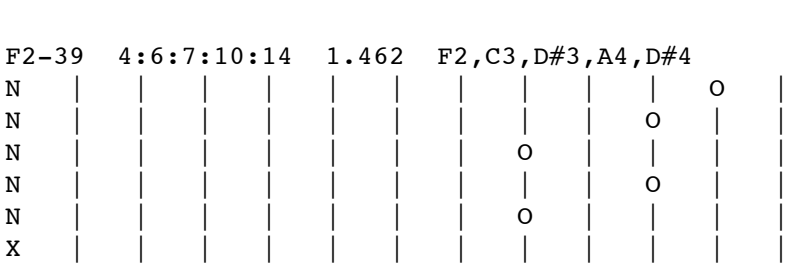
F2-34  4:6:7:9:12  1.508  F2,C3,D#3,G3,C4
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

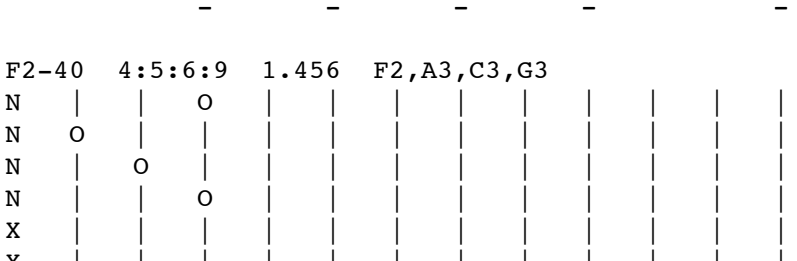
F2-35  4:6:7:10:12  1.486  F2,C3,D#3,A4,C4
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```


F2-36 4:5:6:8 1.483 F2,A3,C3,F3


F2-37 4:5:6:8 1.483 F2,A3,C3,F3


F2-38 4:6:8:9:12 1.472 F2,C3,F3,G3,C4


F2-39 4:6:7:10:14 1.462 F2,C3,D#3,A4,D#4


F2-40 4:5:6:9 1.456 F2,A3,C3,G3

```
F2-41  4:5:6:9  1.456  F2,A3,C3,G3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

F2-42  4:5:7:8  1.436  F2,A3,D#3,F3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

F2-43  4:5:7:8  1.436  F2,A3,D#3,F3
N   O   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

F2-44  4:5:7:9  1.408  F2,A3,D#3,G3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

F2-45  4:5:7:9  1.408  F2,A3,D#3,G3
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

```
F2-46  4:5:7:10  1.386  F2,A3,D#3,A4
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

F2-47  4:5:7:10  1.386  F2,A3,D#3,A4
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

F2-48  5:6:8:12:16:18  1.386  A2,C2,F2,C3,F3,G3
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
            -       -       -       -           -

F2-49  4:5:8:9  1.372  F2,A3,F3,G3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

F2-50  5:5:8:12:14  1.36  A2,A2,F2,C3,D#3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
            -       -       -       -           -
```

```
F2-51  4:5:8:10  1.35  F2,A3,F3,A4
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

F2-52  5:5:8:12:16  1.342  A2,A2,F2,C3,F3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
            -       -       -       -           -

F2-53  4:6:7:9  1.341  F2,C3,D#3,G3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

F2-54  4:6:7:9  1.341  F2,C3,D#3,G3
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

F2-55  4:6:7:10  1.319  F2,C3,D#3,A4
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

```
F2-56  4:6:7:10  1.319  F2,C3,D#3,A4
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

F2-57  4:6:8:9  1.306  F2,C3,F3,G3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

F2-58  4:6:8:9  1.306  F2,C3,F3,G3
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

F2-59  5:6:8:12:14  1.293  A2,C2,F2,C3,D#3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
            -       -       -       -           -

F2-60  5:6:8:12:16  1.275  A2,C2,F2,C3,F3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
            -       -       -       -           -
```

```
F2-61  5:5:8:9  1.272  A2,A2,F2,G2
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
            -       -       -       -           -

F2-62  5:8:10:12:16:20  1.242  A2,F2,A3,C3,F3,A4
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
            -       -       -       -           -

F2-63  5:8:10:12:18:20  1.228  A2,F2,A3,C3,G3,A4
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
            -       -       -       -           -

F2-64  5:5:8:12  1.217  A2,A2,F2,C3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
            -       -       -       -           -

F2-65  5:6:8:9  1.206  A2,C2,F2,G2
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
            -       -       -       -           -
```

```
F2-66  5:8:10:9:18  1.183  A2,F2,A3,G2,G3
X   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |
            -       -       -       -       -

F2-67  5:7:8:9  1.158  A2,D#2,F2,G2
X   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |
            -       -       -       -       -

F2-68  5:6:8:12  1.15  A2,C2,F2,C3
X   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |
            -       -       -       -       -

F2-69  5:8:9:12:18  1.15  A2,F2,G2,C3,G3
N   |   |   O   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -       -

F2-70  5:8:9:12:18  1.15  A2,F2,G2,C3,G3
X   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |
            -       -       -       -       -
```

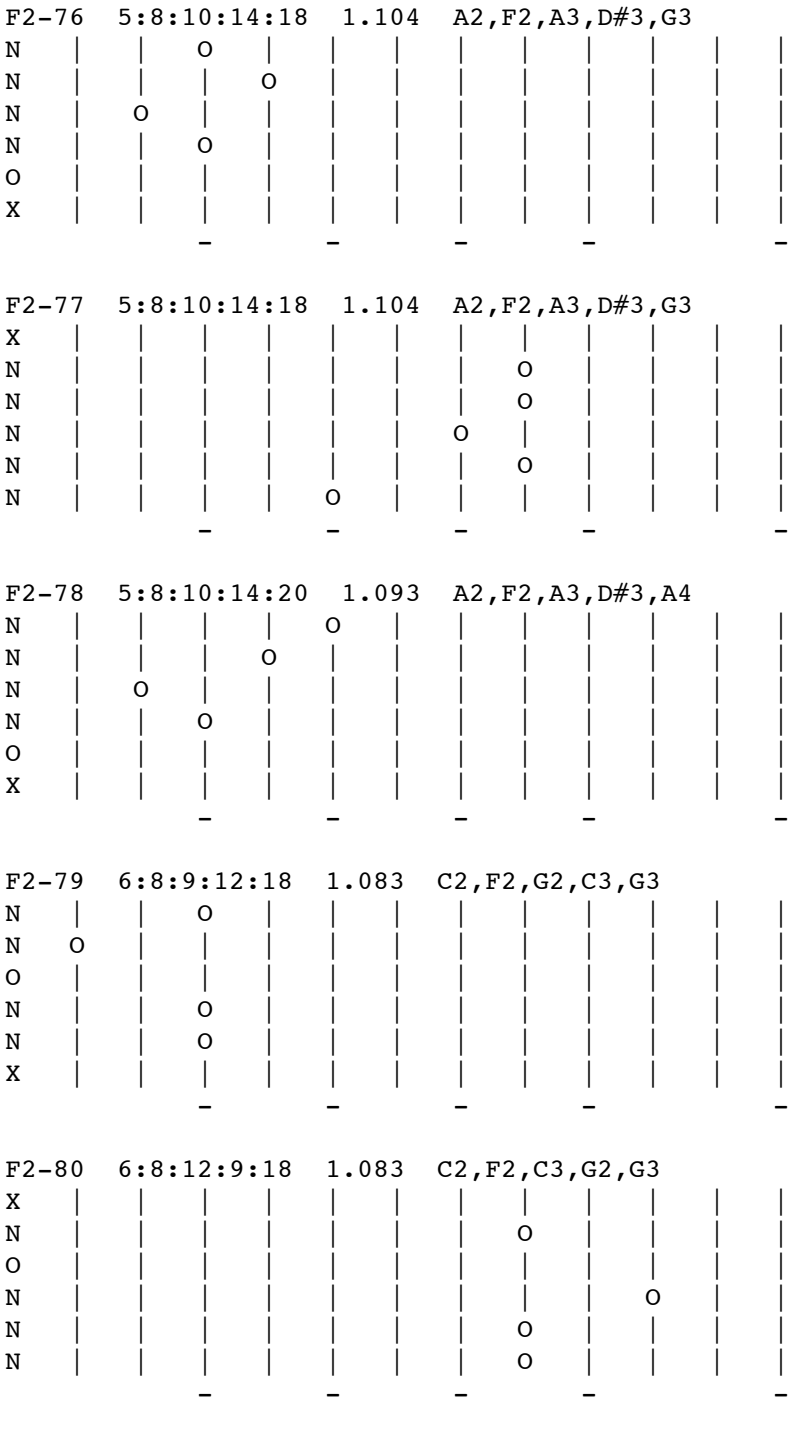
```
F2-71  5:8:10:12:16  1.142  A2,F2,A3,C3,F3
N   O   |   |   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -       -

F2-72  5:8:10:12:16  1.142  A2,F2,A3,C3,F3
X   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |
            -       -       -       -       -

F2-73  5:8:10:12:18  1.128  A2,F2,A3,C3,G3
N   |   |   O   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -       -

F2-74  5:8:10:14:16  1.118  A2,F2,A3,D#3,F3
X   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |
            -       -       -       -       -

F2-75  6:8:10:9:18  1.117  C2,F2,A3,G2,G3
X   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |
            -       -       -       -       -
```


F2-76 5:8:10:14:18 1.104 A2,F2,A3,D#3,G3
F2-77 5:8:10:14:18 1.104 A2,F2,A3,D#3,G3
F2-78 5:8:10:14:20 1.093 A2,F2,A3,D#3,A4
F2-79 6:8:9:12:18 1.083 C2,F2,G2,C3,G3
F2-80 6:8:12:9:18 1.083 C2,F2,C3,G2,G3

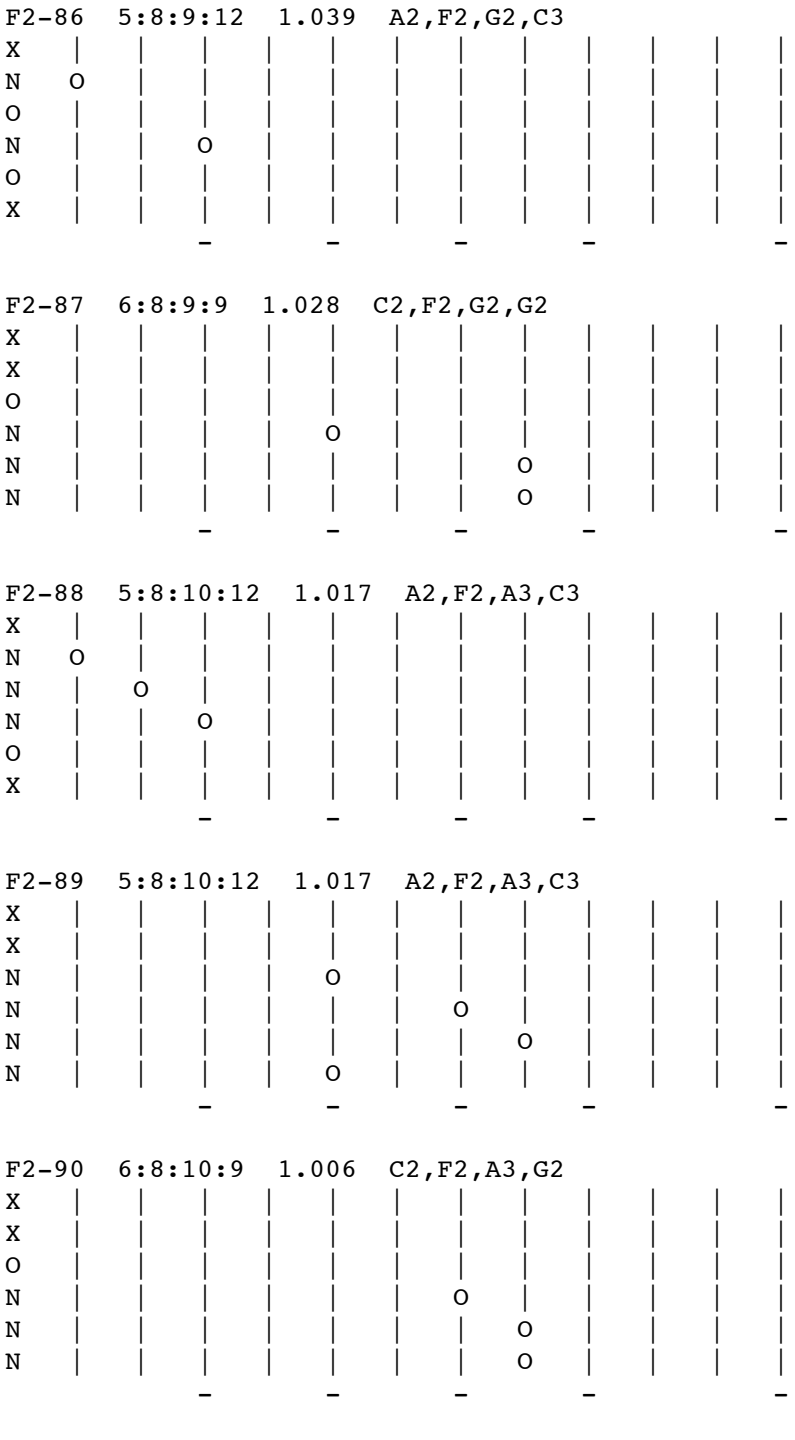
```
F2-81  5:8:10:9  1.072  A2,F2,A3,G2
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
            -       -       -       -           -

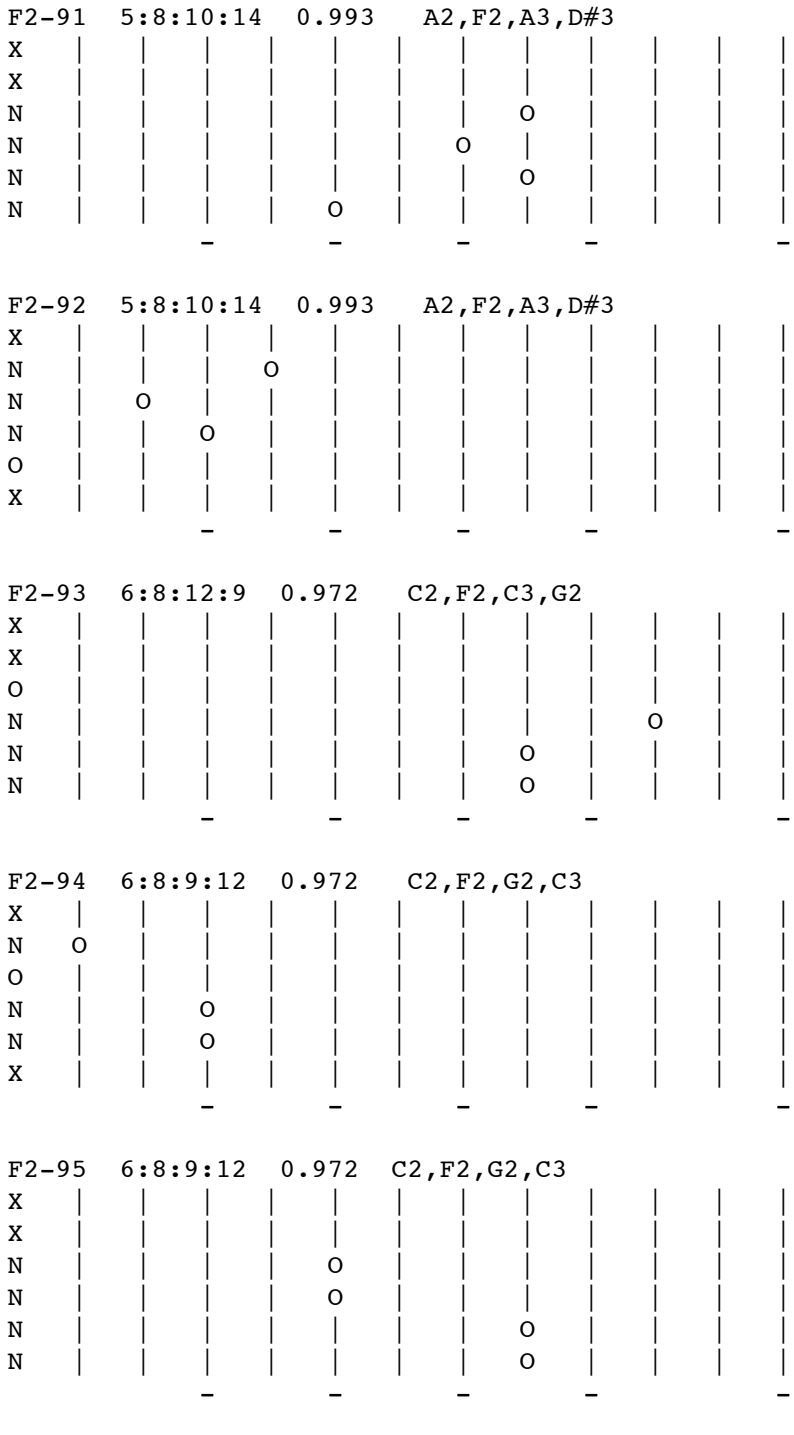
F2-82  5:8:12:14:18  1.071  A2,F2,C3,D#3,G3
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

F2-83  5:8:12:14:20  1.059  A2,F2,C3,D#3,A4
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

F2-84  5:8:12:16:18  1.053  A2,F2,C3,F3,G3
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

F2-85  5:8:12:16:20  1.042  A2,F2,C3,F3,A4
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```


F2-86 5:8:9:12 1.039 A2,F2,G2,C3
F2-87 6:8:9:9 1.028 C2,F2,G2,G2
F2-88 5:8:10:12 1.017 A2,F2,A3,C3
F2-89 5:8:10:12 1.017 A2,F2,A3,C3
F2-90 6:8:10:9 1.006 C2,F2,A3,G2


F2-91 5:8:10:14 0.993 A2,F2,A3,D#3
F2-92 5:8:10:14 0.993 A2,F2,A3,D#3
F2-93 6:8:12:9 0.972 C2,F2,C3,G2
F2-94 6:8:9:12 0.972 C2,F2,G2,C3
F2-95 6:8:9:12 0.972 C2,F2,G2,C3

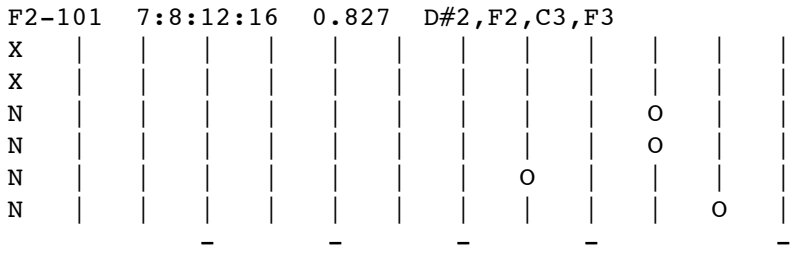
```
F2-96  5:8:12:14  0.96   A2,F2,C3,D#3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

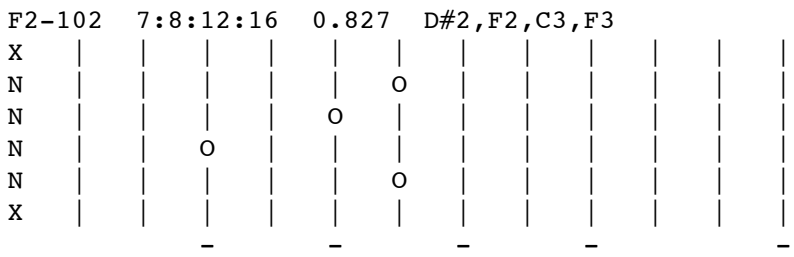
F2-97  5:8:12:16  0.942   A2,F2,C3,F3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

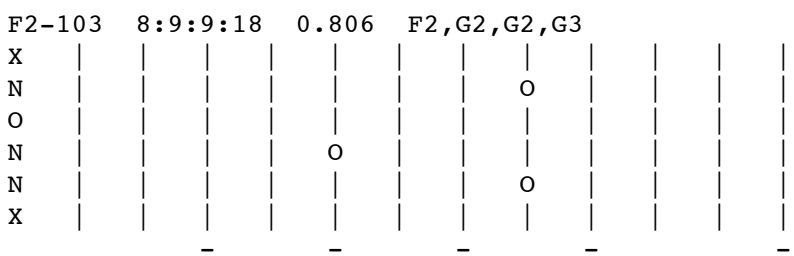
F2-98  7:8:12:9  0.925  D#2,F2,C3,G2
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
            -       -       -       -           -

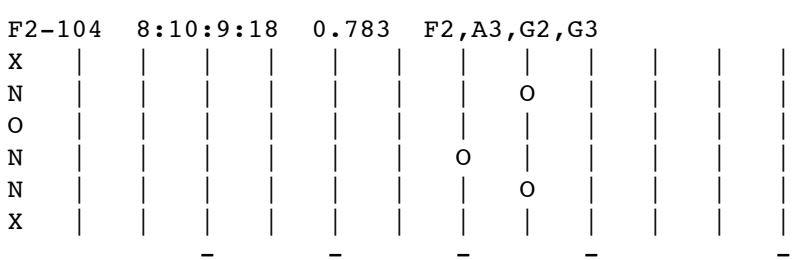
F2-99  8:10:9:18:24  0.867  F2,A3,G2,G3,C4
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

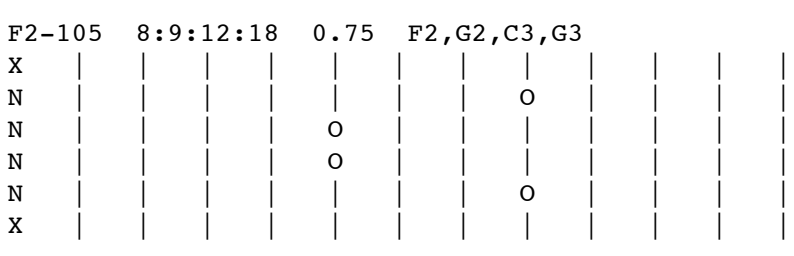
F2-100  8:12:9:18:24  0.833  F2,C3,G2,G3,C4
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

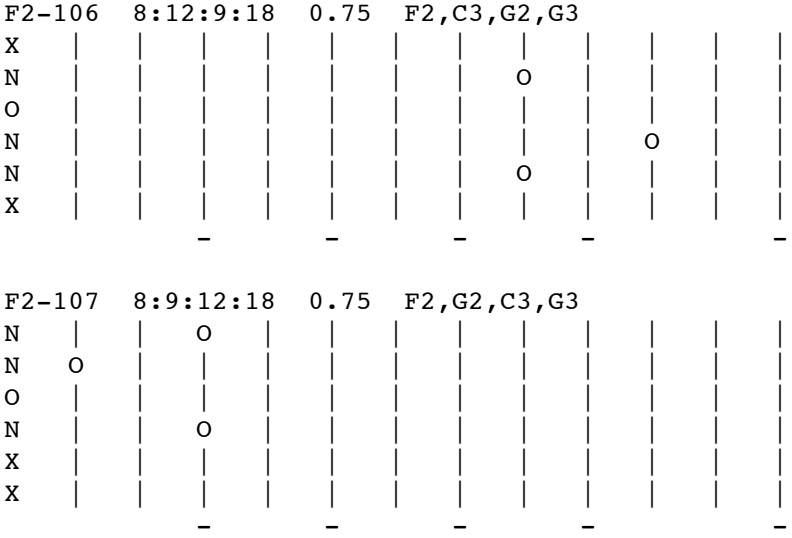

F2-101 7:8:12:16 0.827 D#2,F2,C3,F3
X
X
N
N
N
N
O
O
O

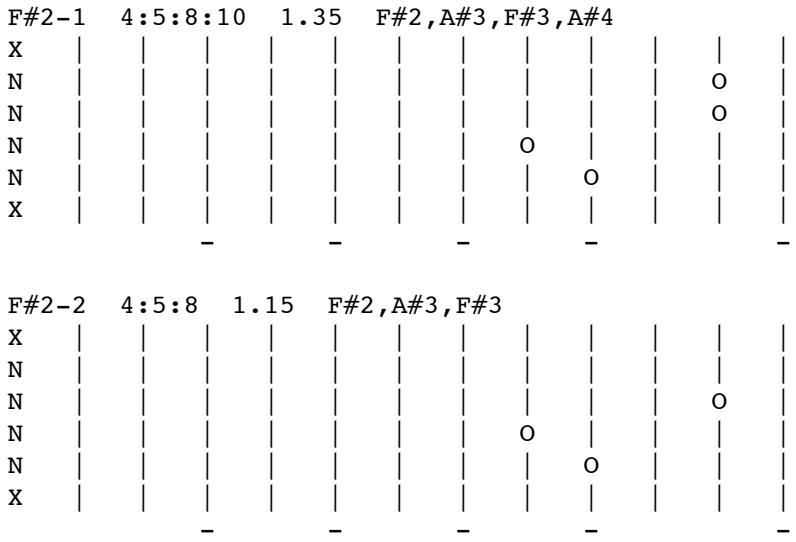

F2-102 7:8:12:16 0.827 D#2,F2,C3,F3
X
N
N
N
N
X
O
O
O


F2-103 8:9:9:18 0.806 F2,G2,G2,G3
X
N
O
N
N
X
O
O
O


F2-104 8:10:9:18 0.783 F2,A3,G2,G3
X
N
O
N
N
X
O
O
O


F2-105 8:9:12:18 0.75 F2,G2,C3,G3
X
N
N
N
N
X
O
O
O


F2-106 8:12:9:18 0.75 F2,C3,G2,G3
X | | | | | | | | | | | |
N | | | | | | | O | | | | |
O | | | | | | | | | | | |
N | | | | | | | | | O | | |
N | | | | | | | O | | | | |
X | | | | | | | | | | | |
- - - - -
F2-107 8:9:12:18 0.75 F2,G2,C3,G3
N | | O | | | | | | | | | |
N O | | | | | | | | | | | |
O | | | | | | | | | | | |
N | | O | | | | | | | | | |
X | | | | | | | | | | | |
X | | | | | | | | | | | |
- - - - -


F#2-1 4:5:8:10 1.35 F#2,A#3,F#3,A#4
X
N
N
N
N
X
F#2-2 4:5:8 1.15 F#2,A#3,F#3
X
N
N
N
N
X

```
G2-1  2:3:2:5:6  3.4  G2,D3,G2,B4,D4
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   |   |   O
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   |   |   O
N   |   |   |   |   |   |   |   |   |   O   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G2-2  2:2:3:4  3.167  G2,G2,D3,G3
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G2-3  2:3:2:5  3.067  G2,D3,G2,B4
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   |   |   O
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   |   |   O
N   |   |   |   |   |   |   |   |   |   O   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G2-4  2:3:4:5:6  2.9  G2,D3,G3,B4,D4
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   |   |   O
N   |   |   |   |   |   |   |   |   |   |   |   O
N   |   |   |   |   |   |   |   |   |   |   |   O
N   |   |   |   |   |   |   |   |   |   O   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G2-5  2:2:4:5  2.9  G2,G2,G3,B4
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

```
G2-6  2:3:4:5  2.567  G2,D3,G3,B4
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   |   |   O
N   |   |   |   |   |   |   |   |   |   |   |   O
N   |   |   |   |   |   |   |   |   |   |   |   O
N   |   |   |   |   |   |   |   |   |   O   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G2-7  2:3:4:5  2.567  G2,D3,G3,B4
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G2-8  3:3:4:5:8  2.483  D2,D2,G2,B3,G3
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G2-9  3:3:4:5:10  2.433  D2,D2,G2,B3,B4
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G2-10  3:3:4:6:8  2.417  D2,D2,G2,D3,G3
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

```
G2-11  3:2:5:6  2.4  D3,G2,B4,D4
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   |   |   O
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   |   |   O
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G2-12  3:4:3:4  2.333  D2,G2,D2,G2
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
            -       -       -       -           -

G2-13  3:4:4:5:8  2.317  D2,G2,G2,B3,G3
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G2-14  3:3:4:8:10  2.283  D2,D2,G2,G3,B4
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G2-15  3:4:4:5:10  2.267  D2,G2,G2,B3,B4
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

```
G2-16  4:3:4:5:10  2.267  G2,D2,G2,B3,B4
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G2-17  3:4:4:6:8  2.25  D2,G2,G2,D3,G3
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G2-18  3:3:4:5  2.233  D2,D2,G2,B3
X   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G2-19  4:3:4:5:12  2.233  G2,D2,G2,B3,D4
N   |   |   |   |   |   |   |   |   |   O   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G2-20  3:4:5:5:8  2.217  D2,G2,B3,B3,G3
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

```
G2-21  3:3:4:6  2.167  D2,D2,G2,D3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G2-22  3:4:5:6:8  2.15  D2,G2,B3,D3,G3
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G2-23  3:4:6:5:10  2.1  D2,G2,D3,B3,B4
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G2-24  3:4:3:8  2.083  D2,G2,D2,G3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   |   |   O
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
            -       -       -       -           -

G2-25  3:3:4:8  2.083  D2,D2,G2,G3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

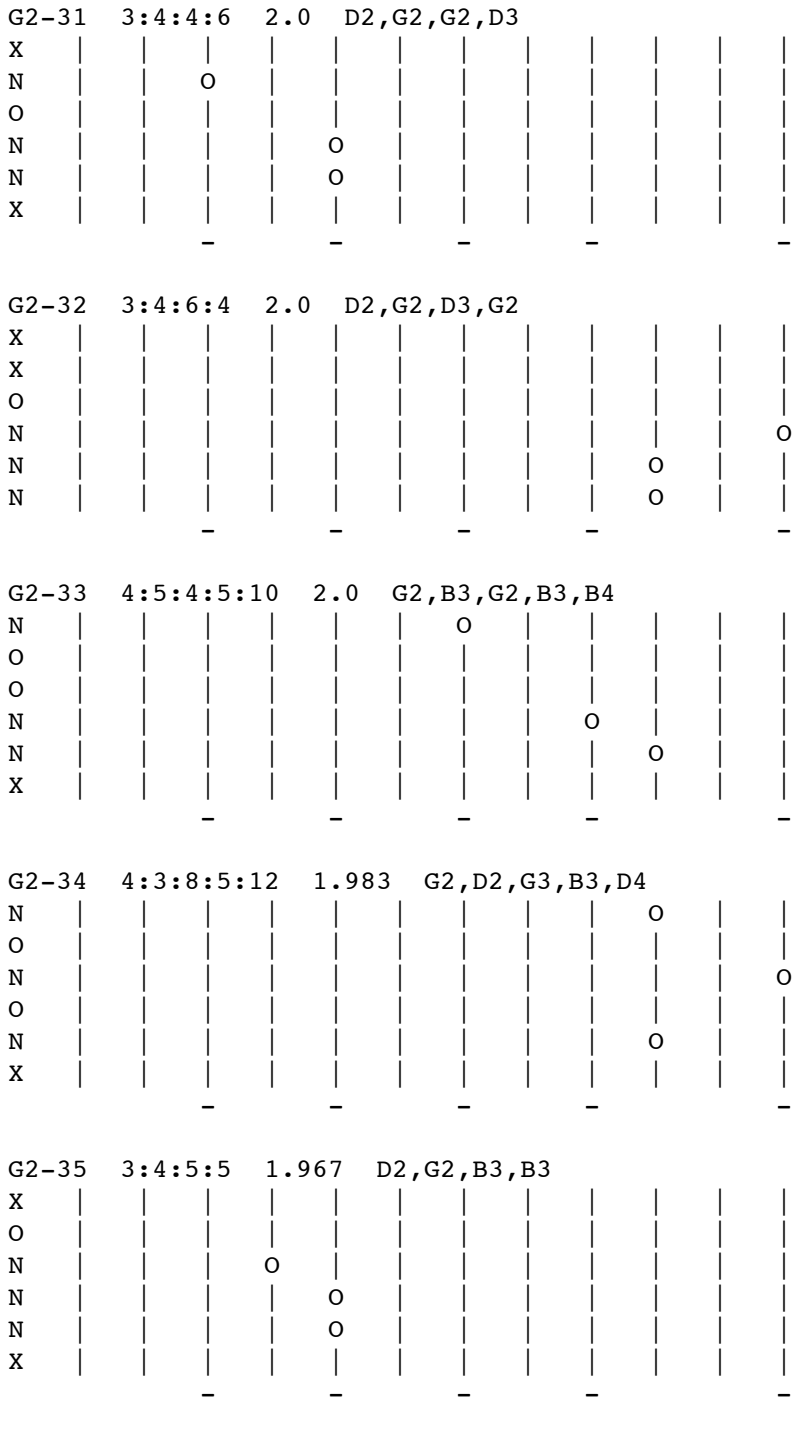
```
G2-26  4:3:4:8:12  2.083  G2,D2,G2,G3,D4
N   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   O   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |
X   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G2-27  3:4:4:5  2.067  D2,G2,G2,B3
X   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G2-28  3:4:5:4  2.067  D2,G2,B3,G2
X   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   O   |   |
            -       -       -       -           -

G2-29  4:3:4:5  2.067  G2,D2,G2,B3
X   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |
X   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G2-30  4:3:4:10:12  2.033  G2,D2,G2,B4,D4
N   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   |   O
O   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |
X   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```


G2-31 3:4:4:6 2.0 D2,G2,G2,D3
G2-32 3:4:6:4 2.0 D2,G2,D3,G2
G2-33 4:5:4:5:10 2.0 G2,B3,G2,B3,B4
G2-34 4:3:8:5:12 1.983 G2,D2,G3,B3,D4
G2-35 3:4:5:5 1.967 D2,G2,B3,B3

```
G2-36  4:5:4:5:12  1.967  G2,B3,G2,B3,D4
N   |   |   |   |   |   |   |   |   |   O   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G2-37  3:4:6:8:10  1.95  D2,G2,D3,G3,B4
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G2-38  3:4:6:8:10  1.95  D2,G2,D3,G3,B4
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   |   |   O
N   |   |   |   |   |   |   |   |   |   |   |   O
N   |   |   |   |   |   |   |   |   |   |   |   O
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
            -       -       -       -           -

G2-39  4:3:4:8  1.917  G2,D2,G2,G3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G2-40  3:4:5:6  1.9  D2,G2,B3,D3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

```
G2-41  4:6:4:5:12  1.9  G2,D3,G2,B3,D4
N   |   |   |   |   |   |   |   |   |   O   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   |   |   O
N   |   |   |   |   |   |   |   |   |   O   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G2-42  4:3:4:10  1.867  G2,D2,G2,B4
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   |   |   O
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G2-43  4:5:4:8:10  1.85  G2,B3,G2,G3,B4
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G2-44  4:3:8:5  1.817  G2,D2,G3,B3
X   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   |   |   O
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G2-45  3:4:5:8  1.817  D2,G2,B3,G3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   |   |   O
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
            -       -       -       -           -
```

```
G2-46  3:4:5:8  1.817  D2,G2,B3,G3
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G2-47  4:5:4:8:12  1.817  G2,B3,G2,G3,D4
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G2-48  4:5:4:5  1.8  G2,B3,G2,B3
X   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G2-49  4:3:8:10:12  1.783  G2,D2,G3,B4,D4
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   |   |   O
N   |   |   |   |   |   |   |   |   |   |   |   O
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G2-50  3:4:5:10  1.767  D2,G2,B3,B4
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

```
G2-51  3:4:6:8  1.75  D2,G2,D3,G3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   |   |   O
N   |   |   |   |   |   |   |   |   |   |   |   O
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
            -       -       -       -           -

G2-52  3:4:6:8  1.75  D2,G2,D3,G3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G2-53  3:4:6:8  1.75  D2,G2,D3,G3
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G2-54  3:4:5:12  1.733  D2,G2,B3,D4
N   |   |   |   |   |   |   |   |   |   O   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G2-55  4:6:4:5  1.733  G2,D3,G2,B3
X   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   |   |   O
N   |   |   |   |   |   |   |   |   |   O   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

```
G2-56  4:5:6:8:10  1.683  G2,B3,D3,G3,B4
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G2-57  4:6:8:5:12  1.65  G2,D3,G3,B3,D4
N   |   |   |   |   |   |   |   |   |   O   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   |   |   O
N   |   |   |   |   |   |   |   |   |   |   |   O
N   |   |   |   |   |   |   |   |   |   O   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G2-58  4:5:4:8  1.65  G2,B3,G2,G3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G2-59  4:4:5:8  1.65  G2,G2,B3,G3
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G2-60  4:3:8:10  1.617  G2,D2,G3,B4
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   |   |   O
N   |   |   |   |   |   |   |   |   |   |   |   O
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

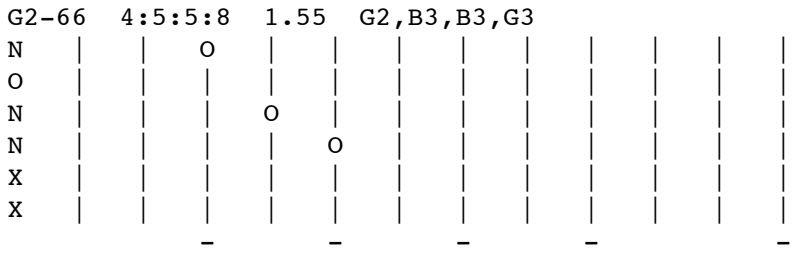
```
G2-61  3:4:8:10  1.617  D2,G2,G3,B4
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

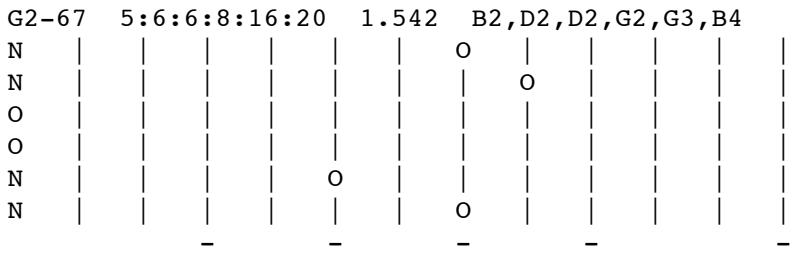
G2-62  5:6:6:8:10:20  1.617  B2,D2,D2,G2,B3,B4
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
            -       -       -       -           -

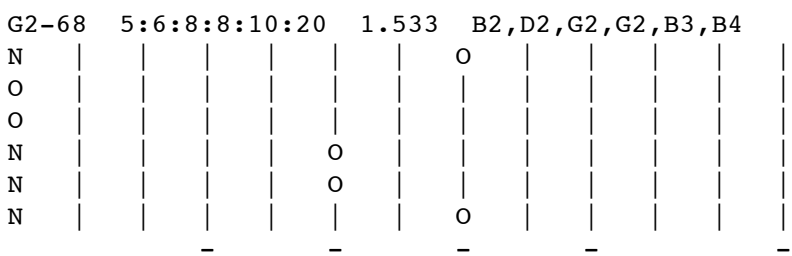
G2-63  4:5:4:10  1.6  G2,B3,G2,B4
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   |   |   O
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

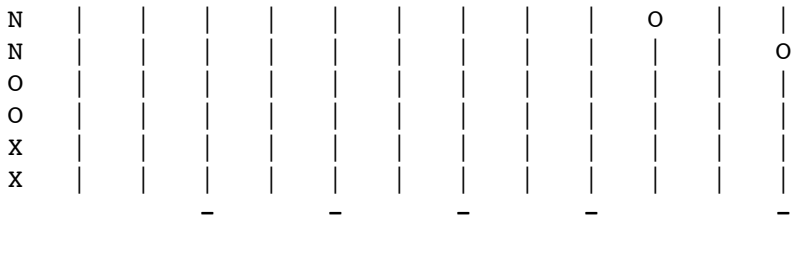
G2-64  4:4:5:10  1.6  G2,G2,B3,B4
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

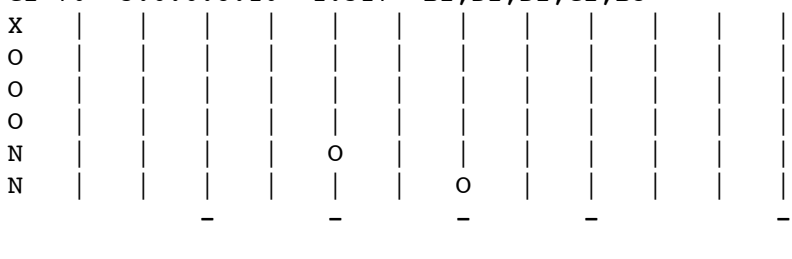
G2-65  3:4:8:12  1.583  D2,G2,G3,D4
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```


G2-66 4:5:5:8 1.55 G2,B3,B3,G3
N O
O
N O
N O
X
X


G2-67 5:6:6:8:16:20 1.542 B2,D2,D2,G2,G3,B4
N O
N O
O
O
N O
N O


G2-68 5:6:8:8:10:20 1.533 B2,D2,G2,G2,B3,B4
N O
O
O
N O
N O
N O


G2-69 3:4:10:12 1.533 D2,G2,B4,D4
N O
N O
O
O
X
X


G2-70 5:6:6:8:10 1.517 B2,D2,D2,G2,B3
X
O
O
O
N O
N O

```
G2-71  4:5:5:10  1.5  G2,B3,B3,B4
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G2-72  5:4:5:10  1.5  B3,G2,B3,B4
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G2-73  4:6:8:5  1.483  G2,D3,G3,B3
X   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   |   |   O
N   |   |   |   |   |   |   |   |   |   |   |   O
N   |   |   |   |   |   |   |   |   |   O   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G2-74  4:5:6:8  1.483  G2,B3,D3,G3
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G2-75  5:4:5:12  1.467  B3,G2,B3,D4
N   |   |   |   |   |   |   |   |   |   O   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

```
G2-76  5:6:6:8:16  1.442  B2,D2,D2,G2,G3
X   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |
            -       -       -       -       -

G2-77  4:6:5:10  1.433  G2,D3,B3,B4
N   |   |   |   |   |   |   O   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -       -

G2-78  5:6:8:8:10  1.433  B2,D2,G2,G2,B3
X   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |
            -       -       -       -       -

G2-79  6:4:5:12  1.4  D3,G2,B3,D4
N   |   |   |   |   |   |   |   |   O   |   |
O   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   |   O
X   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -       -

G2-80  5:8:10:8:10:20  1.4  B2,G2,B3,G2,B3,B4
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
            -       -       -       -       -
```

```
G2-81  5:8:6:8:16  1.358  B2,G2,D2,G2,G3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
            -       -       -       -           -

G2-82  4:5:8:10  1.35  G2,B3,G3,B4
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   |   |   O
N   |   |   |   |   |   |   |   |   |   |   |   O
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G2-83  5:4:8:10  1.35  B3,G2,G3,B4
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G2-84  5:6:8:12:10  1.35  B2,D2,G2,D3,B3
X   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
            -       -       -       -           -

G2-85  5:8:10:8:16:20  1.325  B2,G2,B3,G2,G3,B4
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
            -       -       -       -           -
```

```
G2-86  5:4:8:12  1.317  B3,G2,G3,D4
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G2-87  5:6:6:8  1.317  B2,D2,D2,G2
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
            -       -       -       -           -

G2-88  5:6:8:10:16  1.308  B2,D2,G2,B3,G3
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G2-89  5:8:10:8:10  1.3  B2,G2,B3,G2,B3
X   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
            -       -       -       -           -

G2-90  5:6:8:12:16  1.275  B2,D2,G2,D3,G3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
            -       -       -       -           -
```

```
G2-91  5:6:8:12:16  1.275  B2,D2,G2,D3,G3
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

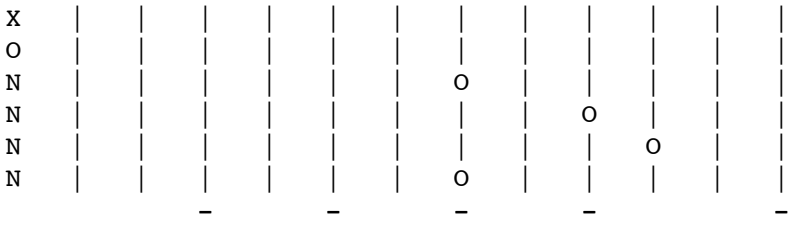
G2-92  5:4:10:12  1.267  B3,G2,B4,D4
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   |   |   O
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G2-93  5:8:10:12:16:20  1.242  B2,G2,B3,D3,G3,B4
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
            -       -       -       -           -

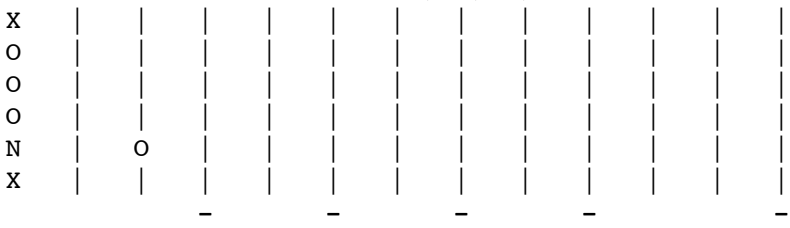
G2-94  5:6:8:8  1.233  B2,D2,G2,G2
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
            -       -       -       -           -

G2-95  5:8:10:8:16  1.225  B2,G2,B3,G2,G3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
            -       -       -       -           -
```

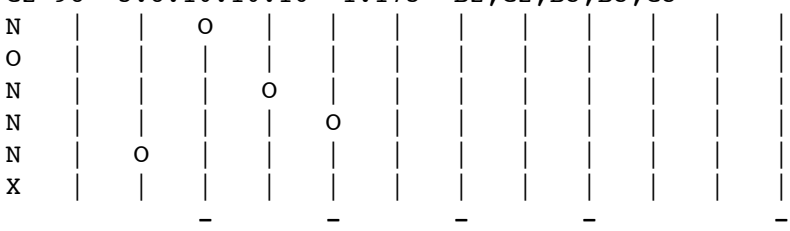
G2-96 5:8:10:12:10 1.217 B2,G2,B3,D3,B3



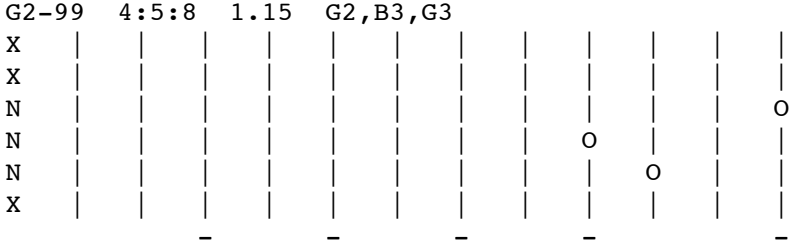
G2-97 5:6:8:10 1.183 B2,D2,G2,B3



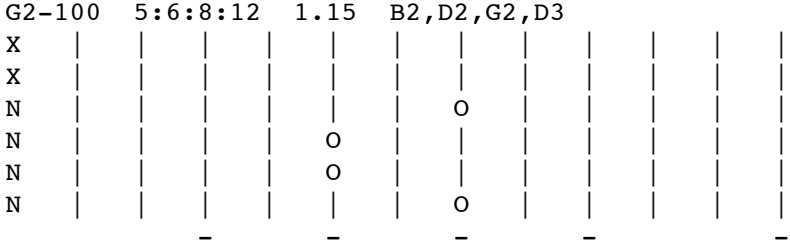
G2-98 5:8:10:10:16 1.175 B2,G2,B3,B3,G3



G2-99 4:5:8 1.15 G2,B3,G3



G2-100 5:6:8:12 1.15 B2,D2,G2,D3



```
G2-101  5:6:8:12  1.15  B2,D2,G2,D3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G2-102  5:8:10:12:16  1.142  B2,G2,B3,D3,G3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
            -       -       -       -           -

G2-103  5:8:10:8  1.1  B2,G2,B3,G2
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
            -       -       -       -           -

G2-104  5:8:8:10  1.1  B2,G2,G2,B3
X   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G2-105  5:8:8:12  1.067  B2,G2,G2,D3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

```
G2-106  5:8:10:10  1.05  B2,G2,B3,B3
X   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G2-107  5:8:10:12  1.017  B2,G2,B3,D3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
            -       -       -       -           -

G2-108  5:8:10:12  1.017  B2,G2,B3,D3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

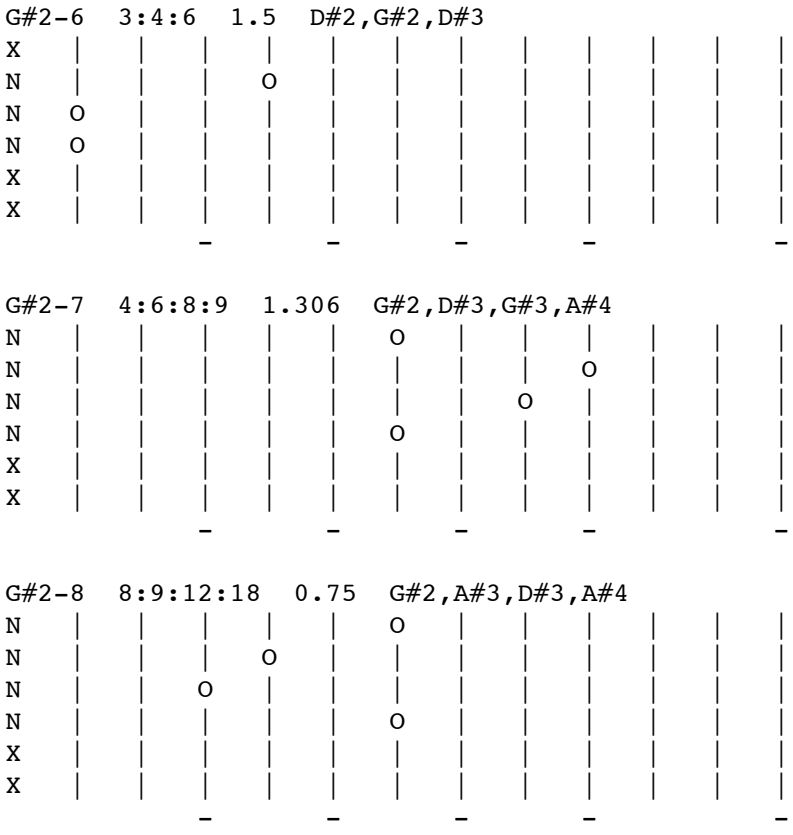
```
G#2-1  2:3:4  2.167  G#2,D#3,G#3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G#2-2  2:3:4  2.167  G#2,D#3,G#3
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G#2-3  3:4:6:8:9  1.972  D#2,G#2,D#3,G#3,A#4
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G#2-4  3:4:6:8  1.75  D#2,G#2,D#3,G#3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G#2-5  3:4:6:8  1.75  D#2,G#2,D#3,G#3
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```


G#2-6 3:4:6 1.5 D#2,G#2,D#3
G#2-7 4:6:8:9 1.306 G#2,D#3,G#3,A#4
G#2-8 8:9:12:18 0.75 G#2,A#3,D#3,A#4

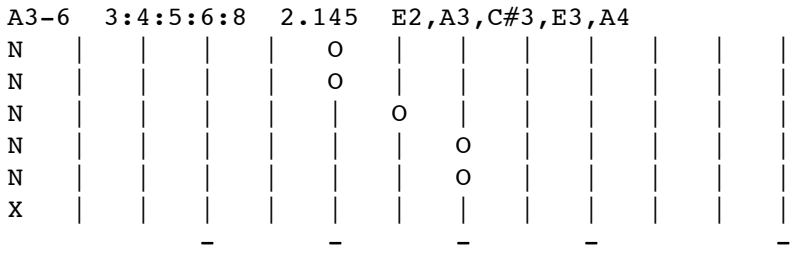
```
A3-1  2:3:4:3  2.833  A3,E3,A4,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -

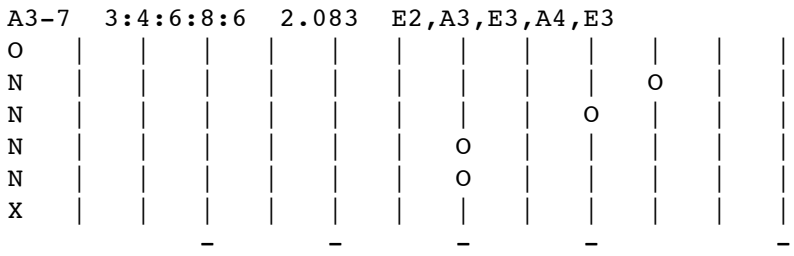
A3-2  2:3:4:5  2.567  A3,E3,A4,C#4
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -

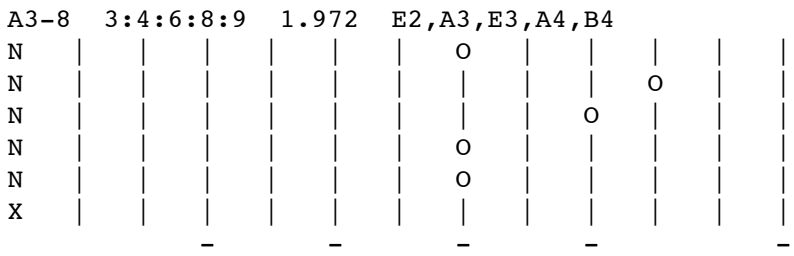
A3-3  3:4:5:6:6  2.233  E2,A3,C#3,E3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -

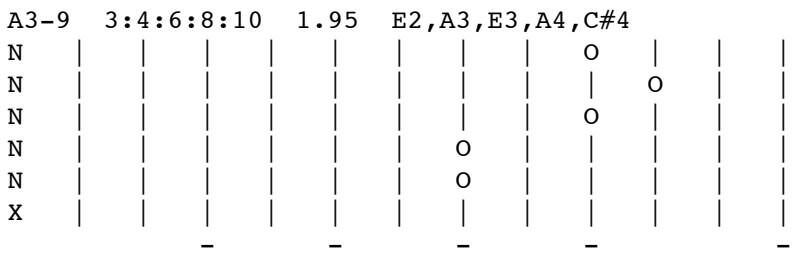
A3-4  2:3:4  2.167  A3,E3,A4
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -

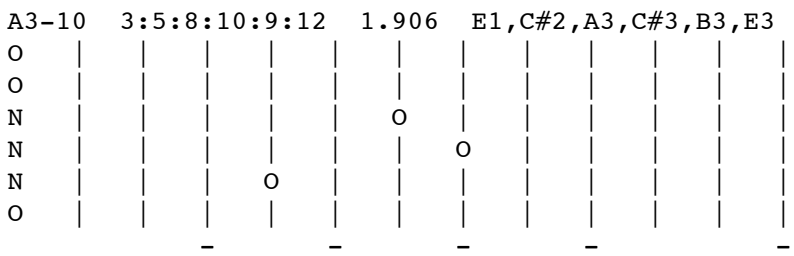
A3-5  2:3:4  2.167  A3,E3,A4
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -
```


A3-6 3:4:5:6:8 2.145 E2,A3,C#3,E3,A4


A3-7 3:4:6:8:6 2.083 E2,A3,E3,A4,E3


A3-8 3:4:6:8:9 1.972 E2,A3,E3,A4,B4


A3-9 3:4:6:8:10 1.95 E2,A3,E3,A4,C#4


A3-10 3:5:8:10:9:12 1.906 E1,C#2,A3,C#3,B3,E3

```
A3-11  3:4:5:6  1.9  E2,A3,C#3,E3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   |   |   O   |
N   |   |   |   |   |   |   |   |   |   |   |   O
N   |   |   |   |   |   |   |   |   |   |   |   O
              -       -       -       -           -

A3-12  3:4:5:6  1.9  E2,A3,C#3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -

A3-13  3:4:5:6  1.9  E2,A3,C#3,E3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -

A3-14  3:5:8:9:12:12  1.872  E1,C#2,A3,B3,E3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -

A3-15  3:5:6:8:9  1.872  E1,C#2,E2,A3,B3
X   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -
```

```
A3-16  3:6:8:9:9:12  1.861  E1,E2,A3,B3,B3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

A3-17  3:5:6:8:10  1.85  E1,C#2,E2,A3,C#3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

A3-18  3:5:8:10:12:12  1.85  E1,C#2,A3,C#3,E3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

A3-19  3:6:8:10:9:12  1.839  E1,E2,A3,C#3,B3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

A3-20  3:4:5:8  1.817  E2,A3,C#3,A4
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

```
A3-21  3:4:5:8  1.817  E2,A3,C#3,E3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

A3-22  4:5:6:8:6  1.817  A3,C#3,E3,A4,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   |   |   O   |
N   |   |   |   |   |   |   |   |   |   |   |   O
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

A3-23  3:5:6:8:12  1.817  E1,C#2,E2,A3,E3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

A3-24  3:6:8:12:9:12  1.806  E1,E2,A3,E3,B3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

A3-25  3:6:8:10:12:12  1.783  E1,E2,A3,C#3,E3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

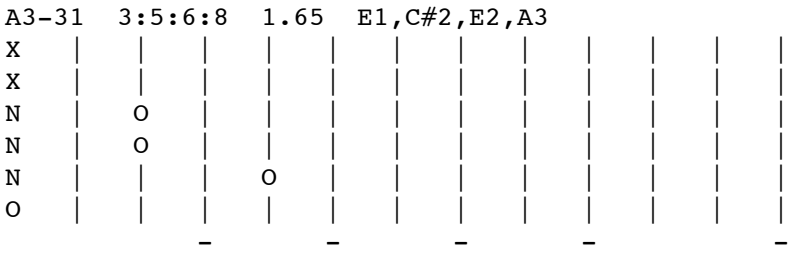
```
A3-26  3:4:6:8  1.75  E2,A3,E3,A4
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -

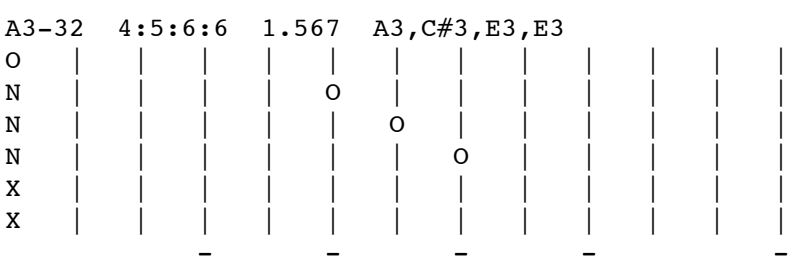
A3-27  3:4:6:8  1.75  E2,A3,E3,A4
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -

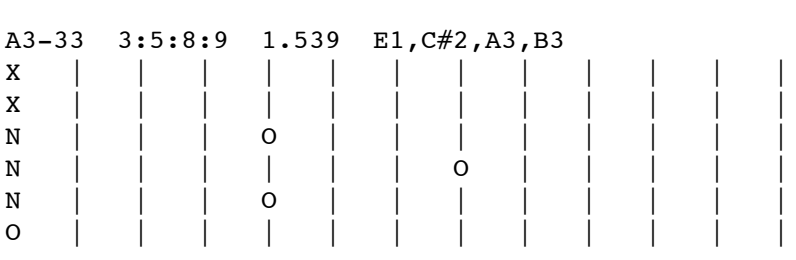
A3-28  3:5:8:10:9  1.739  E1,C#2,A3,C#3,B3
X   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -

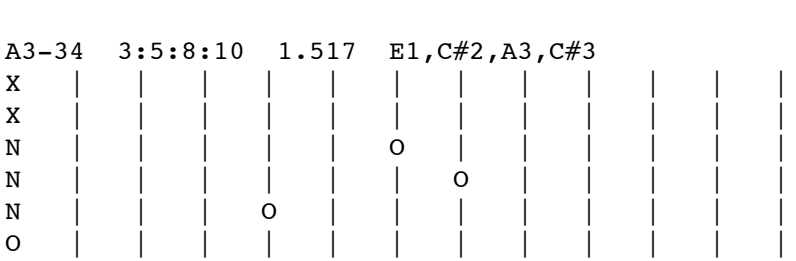
A3-29  3:6:8:10:9  1.672  E1,E2,A3,C#3,B3
X   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -

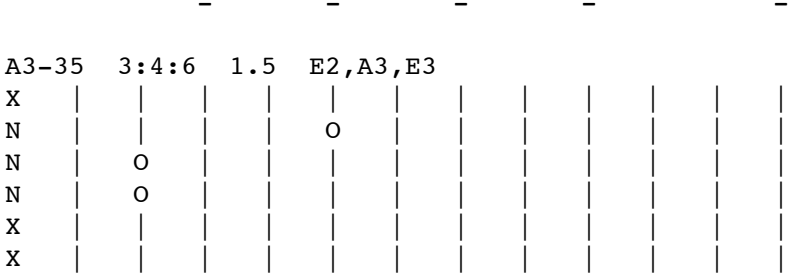
A3-30  3:8:10:12:9:12  1.672  E1,A3,C#3,E3,B3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   |   |   O   |
N   |   |   |   |   |   |   |   |   |   |   |   O
O   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -
```


A3-31 3:5:6:8 1.65 E1,C#2,E2,A3
X
X
N O
N O
N
O


A3-32 4:5:6:6 1.567 A3,C#3,E3,E3
O
N
N
N
X
X


A3-33 3:5:8:9 1.539 E1,C#2,A3,B3
X
X
N
N
N
O


A3-34 3:5:8:10 1.517 E1,C#2,A3,C#3
X
X
N
N
N
O


A3-35 3:4:6 1.5 E2,A3,E3
X
N
N O
N O
X
X

```
A3-36  4:5:6:8  1.483  A3,C#3,E3,A4
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   |   |   O   |
N   |   |   |   |   |   |   |   |   |   |   |   O
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

A3-37  4:5:6:8  1.483  A3,C#3,E3,A4
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

A3-38  3:6:8:9  1.472  E1,E2,A3,B3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

A3-39  4:5:6:9  1.456  A3,C#3,E3,B4
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   |   |   O
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   |   |   O   |
N   |   |   |   |   |   |   |   |   |   |   |   O
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

A3-40  4:5:6:9  1.456  A3,C#3,E3,B4
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

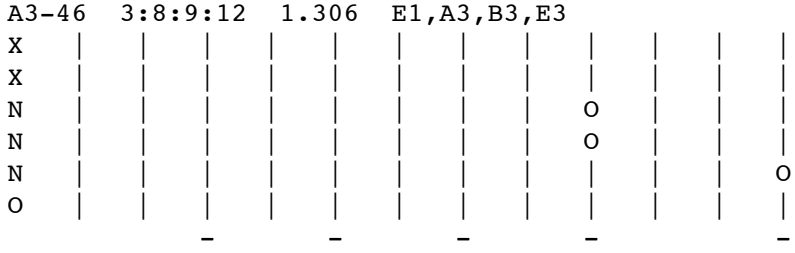
```
A3-41  3:6:8:10  1.45  E1,E2,A3,C#3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

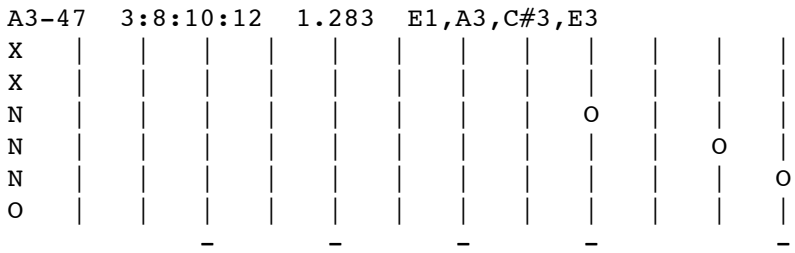
A3-42  3:6:8:12  1.417  E1,E2,A3,E3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

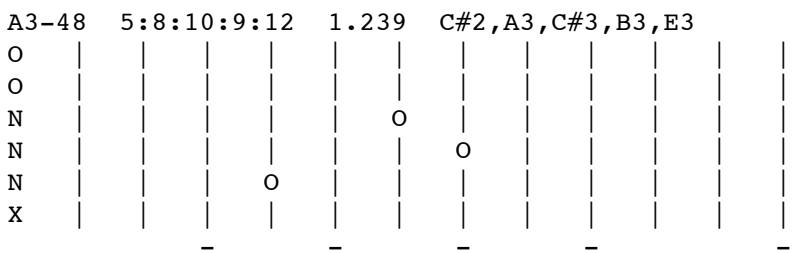
A3-43  5:6:8:9:12  1.372  C#2,E2,A3,B3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

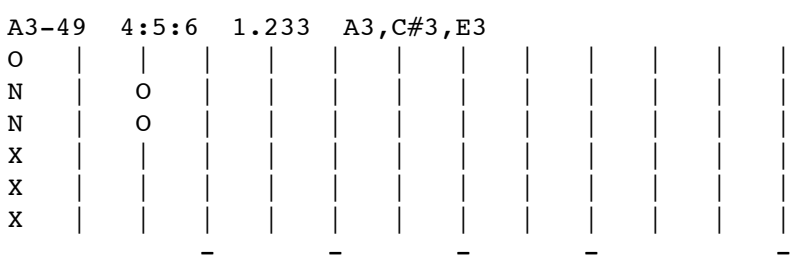
A3-44  5:6:8:10:16  1.308  C#2,E2,A3,C#3,A4
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

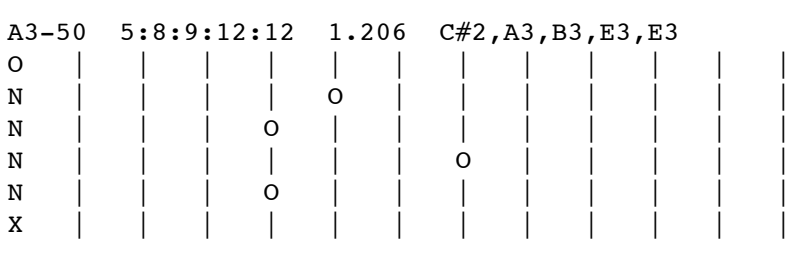
A3-45  4:6:8:9  1.306  A3,E3,A4,B4
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```


A3-46 3:8:9:12 1.306 E1,A3,B3,E3


A3-47 3:8:10:12 1.283 E1,A3,C#3,E3


A3-48 5:8:10:9:12 1.239 C#2,A3,C#3,B3,E3


A3-49 4:5:6 1.233 A3,C#3,E3


A3-50 5:8:9:12:12 1.206 C#2,A3,B3,E3,E3

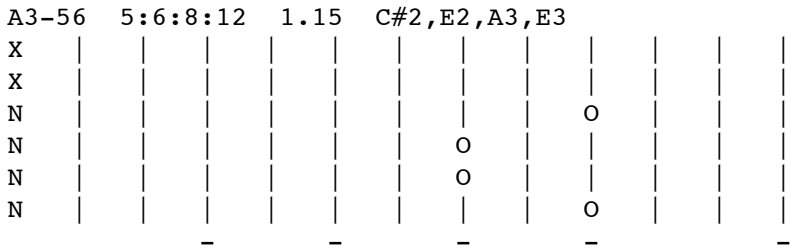
```
A3-51  6:8:9:9:12  1.194  E2,A3,B3,B3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
                -       -       -       -           -

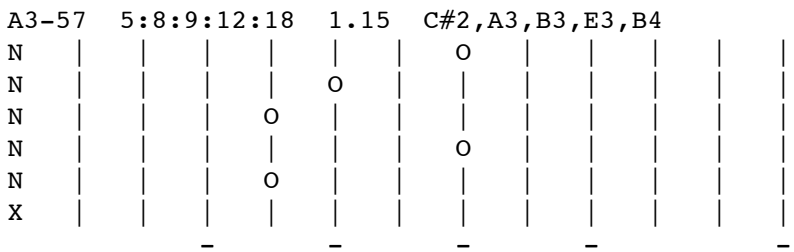
A3-52  5:6:8:10  1.183  C#2,E2,A3,C#3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
                -       -       -       -           -

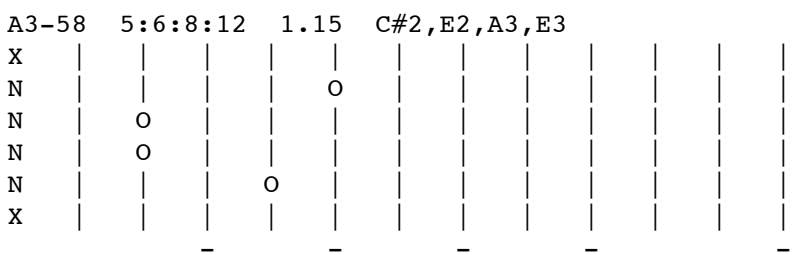
A3-53  5:8:10:9:18  1.183  C#2,A3,C#3,B3,B4
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
                -       -       -       -           -

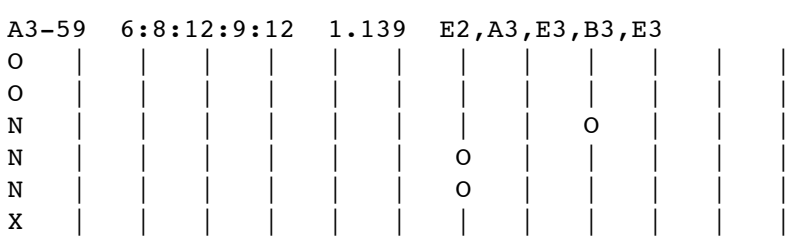
A3-54  5:8:10:12:12  1.183  C#2,A3,C#3,E3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
                -       -       -       -           -

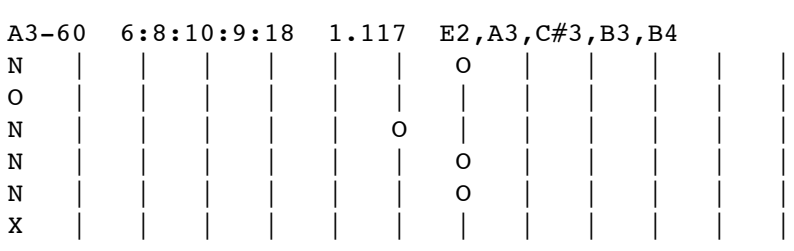
A3-55  6:8:10:9:12  1.172  E2,A3,C#3,B3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
                -       -       -       -           -
```


A3-56 5:6:8:12 1.15 C#2,E2,A3,E3
X | | | | | | | | | | | |
X | | | | | | | | | | | |
N | | | | | | | | O | | | |
N | | | | | | O | | | | | |
N | | | | | | O | | | | | |
N | | | | | | | | O | | | |
- - - - -


A3-57 5:8:9:12:18 1.15 C#2,A3,B3,E3,B4
N | | | | | | O | | | | | |
N | | | | O | | | | | | | |
N | | | O | | | | | | | | |
N | | | | | | O | | | | | |
N | | | O | | | | | | | | |
X | | | | | | | | | | | |
- - - - -


A3-58 5:6:8:12 1.15 C#2,E2,A3,E3
X | | | | | | | | | | | |
N | | | | O | | | | | | | |
N | O | | | | | | | | | | |
N | O | | | | | | | | | | |
N | | | O | | | | | | | | |
X | | | | | | | | | | | |
- - - - -


A3-59 6:8:12:9:12 1.139 E2,A3,E3,B3,E3
O | | | | | | | | | | | |
O | | | | | | | | | | | |
N | | | | | | | | O | | | |
N | | | | | | O | | | | | |
N | | | | | | O | | | | | |
X | | | | | | | | | | | |
- - - - -


A3-60 6:8:10:9:18 1.117 E2,A3,C#3,B3,B4
N | | | | | | O | | | | | |
O | | | | | | | | | | | |
N | | | | | O | | | | | | |
N | | | | | | O | | | | | |
N | | | | | | O | | | | | |
X | | | | | | | | | | | |
- - - - -

```
A3-61  6:8:12:9:18  1.083  E2,A3,E3,B3,B4
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

A3-62  5:8:9:12  1.039  C#2,A3,B3,E3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   |   |   |   O
N   |   |   |   |   |   |   |   |   O   |   |   |
            -       -       -       -           -

A3-63  5:8:9:12  1.039  C#2,A3,B3,E3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

A3-64  5:8:10:12  1.017  C#2,A3,C#3,E3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

A3-65  5:8:10:12  1.017  C#2,A3,C#3,E3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   |   |   O   |
N   |   |   |   |   |   |   |   |   |   |   |   O
N   |   |   |   |   |   |   |   |   O   |   |   |
            -       -       -       -           -
```

```
A3-66  6:8:10:9  1.006  E2,A3,C#3,B3
X   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

A3-67  8:10:12:9:12  1.006  A3,C#3,E3,B3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   |   |   O
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

A3-68  6:8:12:9  0.972   E2,A3,E3,B3
X   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

A3-69  6:8:9:12  0.972   E2,A3,B3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

A3-70  8:9:9:12  0.861  A3,B3,B3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

```
A3-71  8:10:9:12  0.839   A3,C#3,B3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -

A3-72  8:12:9:12  0.806   A3,E3,B3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -

A3-73  8:9:12:12  0.806  A3,B3,E3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -

A3-74  8:12:9:12  0.806  A3,E3,B3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -

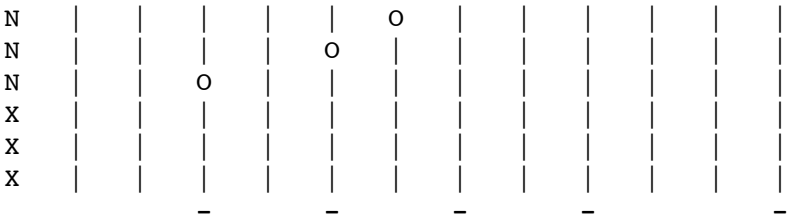
A3-75  8:9:9:18  0.806  A3,B3,B3,B4
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -
```

```
A3-76  8:10:9:18  0.783  A3,C#3,B3,B4
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

A3-77  8:9:12:18  0.75  A3,B3,E3,B4
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

A3-78  8:12:9:18  0.75  A3,E3,B3,B4
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

There are no lush chords on A#3.
This chord is not lush, it is not strongly rooted and
has an overall strength less than 0.75.



```
B3-1  2:3:2:5  3.067  B3,F#3,B3,D#4
N   |   |   |   |   |   |   |   |   |   |   O   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   |   O   |
N   |   |   |   |   |   |   |   |   O   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -

B3-2  2:3:4:5  2.567  B3,F#3,B4,D#4
N   |   |   |   |   |   |   |   |   |   |   O   |
N   |   |   |   |   |   |   |   |   |   |   |   O
N   |   |   |   |   |   |   |   |   |   |   O   |
N   |   |   |   |   |   |   |   |   O   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -

B3-3  3:4:5:4:8  2.317  F#2,B3,D#3,B3,B4
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -

B3-4  3:4:5:4:10  2.267  F#2,B3,D#3,B3,D#4
N   |   |   |   |   |   |   |   |   |   |   O   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -

B3-5  3:4:6:4:10  2.2  F#2,B3,F#3,B3,D#4
N   |   |   |   |   |   |   |   |   |   |   O   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   |   O   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -
```

```
B3-6  2:3:4  2.167  B3,F#3,B4
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   |   |   O
N   |   |   |   |   |   |   |   |   |   |   O   |
N   |   |   |   |   |   |   |   |   O   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

B3-7  2:3:4  2.167  B3,F#3,B4
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

B3-8  3:4:5:6:8  2.15  F#2,B3,D#3,F#3,B4
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

B3-9  3:4:6:4:10  2.2  F#2,B3,F#3,B3,D#4
N   |   |   |   |   |   |   |   |   |   |   O   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   |   O   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

B3-10  3:4:5:4  2.067  F#2,B3,D#3,B3
X   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

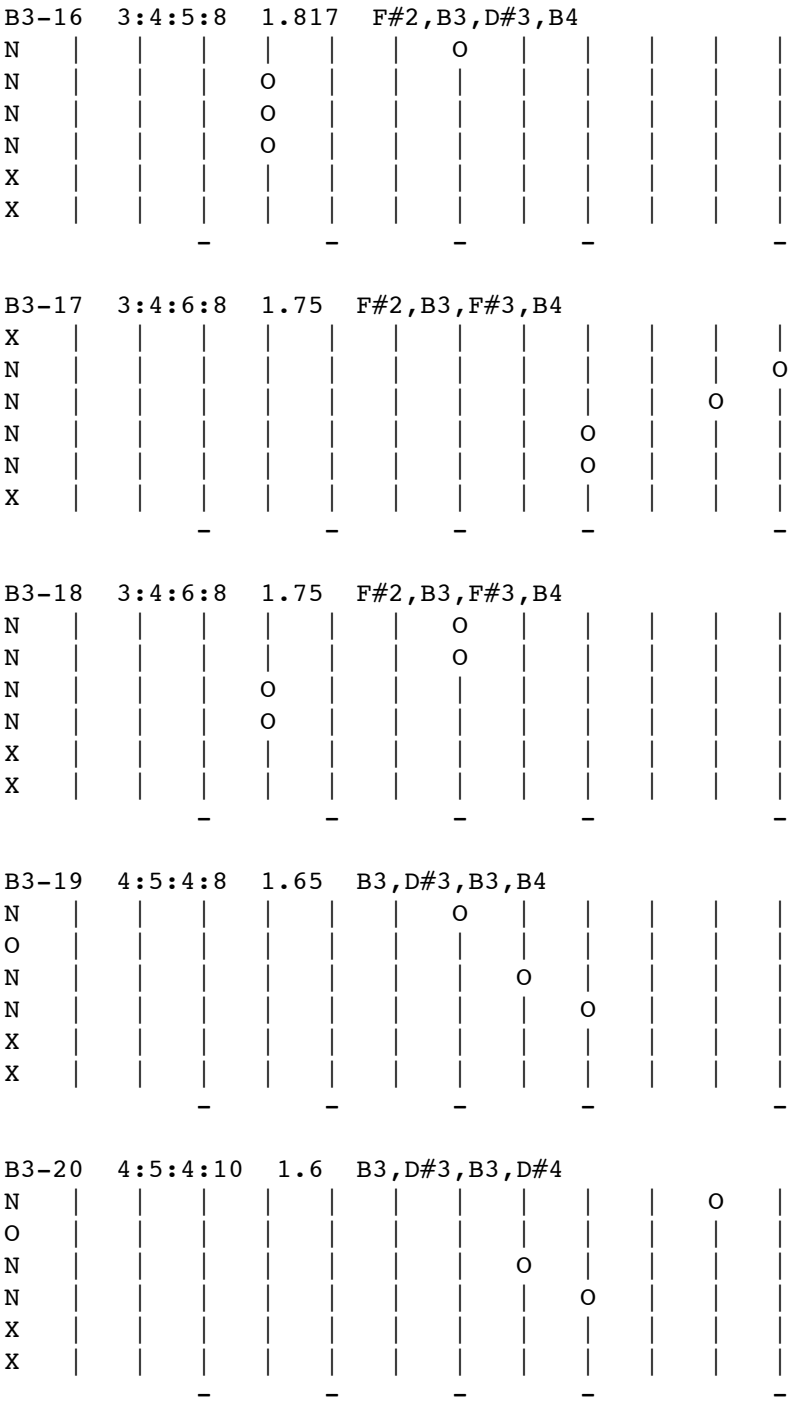
```
B3-11  3:4:6:4  2.0  F#2,B3,F#3,B3
X   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   |   O   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -

B3-12  3:4:4:6  2.0  F#2,B3,B3,F#3
N   |   O   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -

B3-13  3:4:6:8:10  1.95  F#2,B3,F#3,B4,D#4
N   |   |   |   |   |   |   |   |   |   |   O   |
N   |   |   |   |   |   |   |   |   |   |   |   O
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -

B3-14  3:4:5:6  1.9  F#2,B3,D#3,F#3
N   |   O   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -

B3-15  3:4:5:6  1.9  F#2,B3,D#3,F#3
X   |   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -
```


B3-16 3:4:5:8 1.817 F#2,B3,D#3,B4
B3-17 3:4:6:8 1.75 F#2,B3,F#3,B4
B3-18 3:4:6:8 1.75 F#2,B3,F#3,B4
B3-19 4:5:4:8 1.65 B3,D#3,B3,B4
B3-20 4:5:4:10 1.6 B3,D#3,B3,D#4

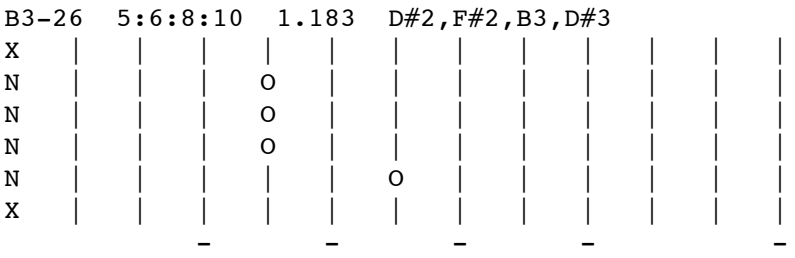
```
B3-21  4:5:6:8  1.483  B3,D#3,F#3,B4
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

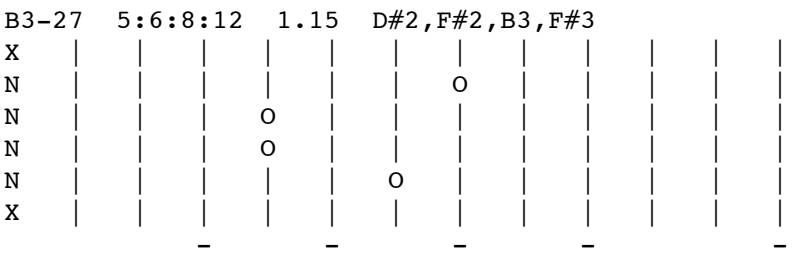
B3-22  5:6:8:10:16  1.308  D#2,F#2,B3,D#3,B4
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

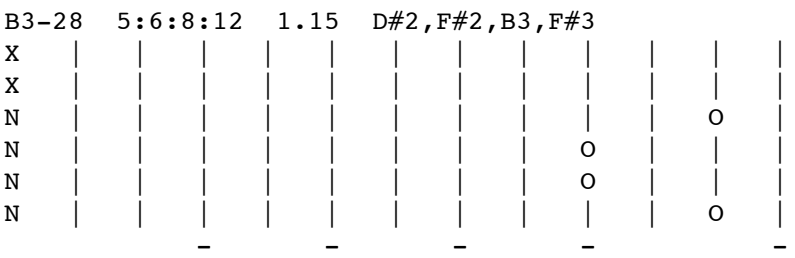
B3-23  4:5:6  1.233  B3,D#3,F#3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

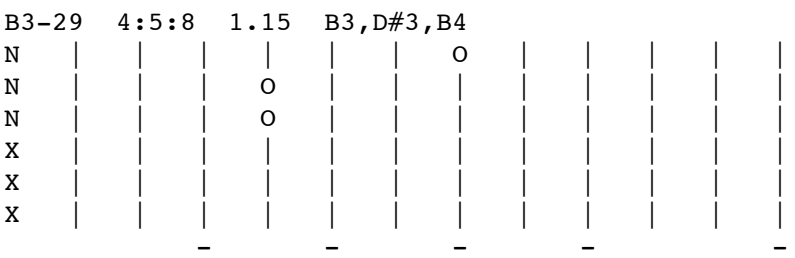
B3-24  4:5:6  1.233  B3,D#3,F#3
N   |   O   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

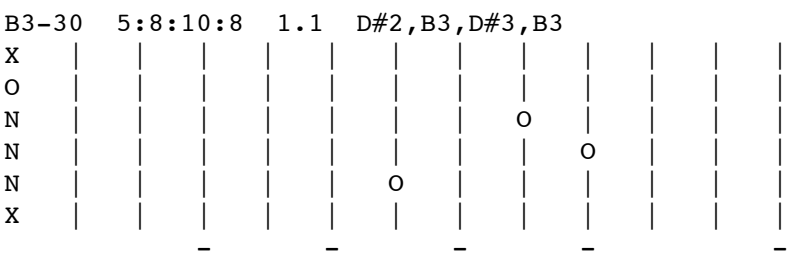
B3-25  5:6:8:8  1.233  D#2,F#2,B3,B3
X   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

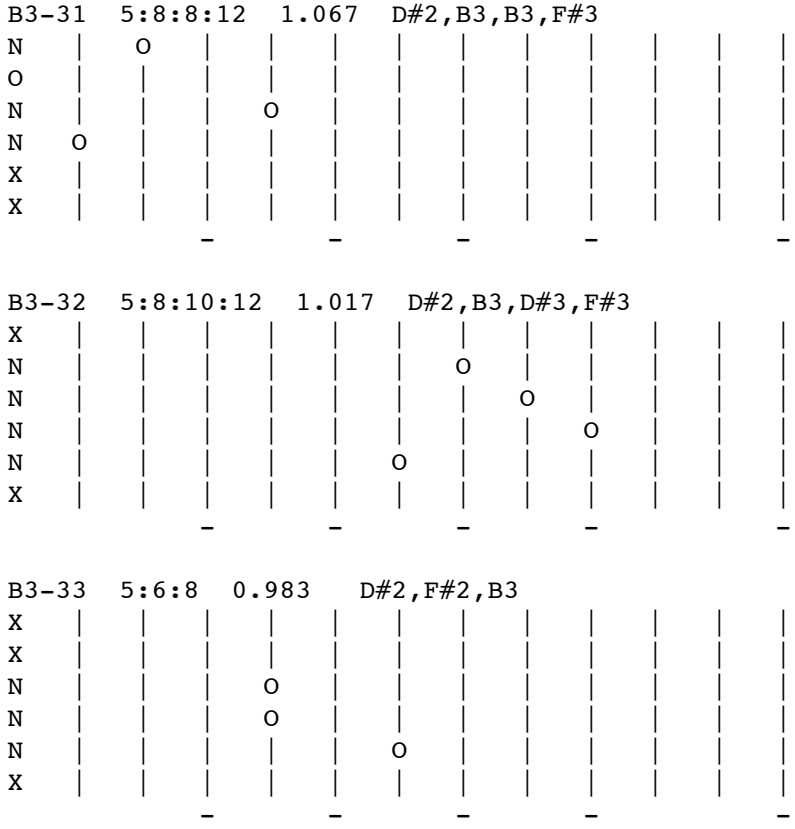

B3-26 5:6:8:10 1.183 D#2,F#2,B3,D#3


B3-27 5:6:8:12 1.15 D#2,F#2,B3,F#3


B3-28 5:6:8:12 1.15 D#2,F#2,B3,F#3


B3-29 4:5:8 1.15 B3,D#3,B4


B3-30 5:8:10:8 1.1 D#2,B3,D#3,B3


B3-31 5:8:8:12 1.067 D#2,B3,B3,F#3
B3-32 5:8:10:12 1.017 D#2,B3,D#3,F#3
B3-33 5:6:8 0.983 D#2,F#2,B3

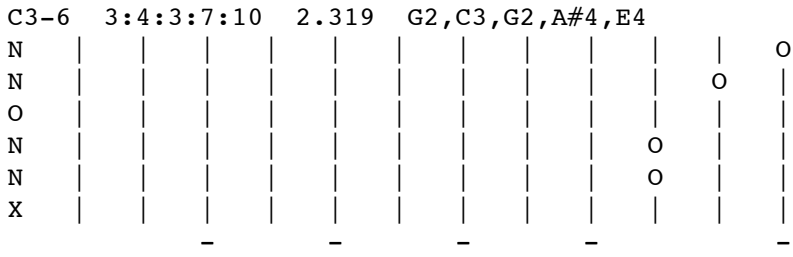
```
C3-1  3:4:3:6:5  2.567  G2,C3,G2,G3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C3-2  3:4:3:7:5  2.519  G2,C3,G2,A#4,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   |   O   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C3-3  3:4:3:6:8  2.417  G2,C3,G2,G3,C4
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C3-4  3:4:3:6:9  2.389  G2,C3,G2,G3,D4
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C3-5  3:4:3:7:8  2.369  G2,C3,G2,A#4,C4
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   |   |   O   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```


C3-6 3:4:3:7:10 2.319 G2,C3,G2,A#4,E4
C3-7 3:4:5:6:5 2.3 G2,C3,E3,G3,E3
C3-8 3:4:5:7:5 2.252 G2,C3,E3,A#4,E3
C3-9 3:4:6:7:5 2.186 G2,C3,G3,A#4,E3
C3-10 2:3:4 2.167 C3,G3,C4

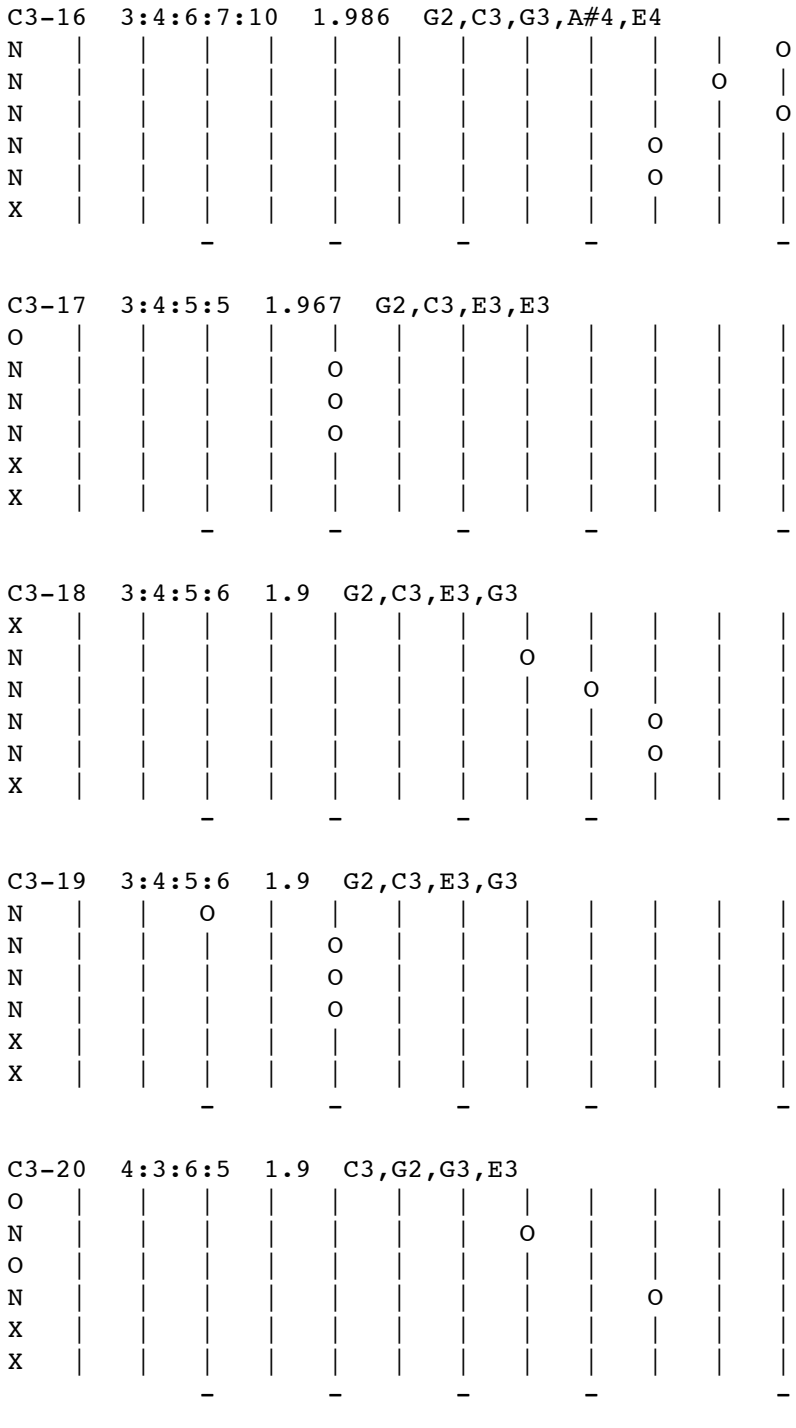
```
C3-11  3:4:3:6  2.167  G2,C3,G2,G3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

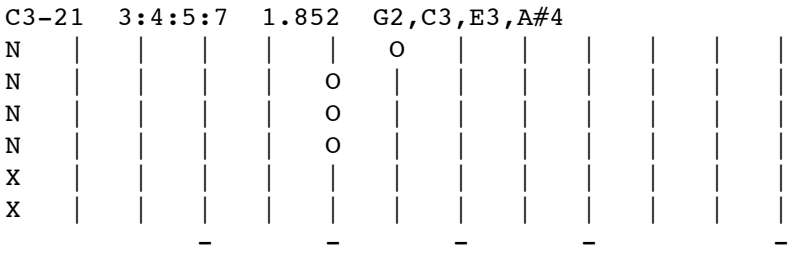
C3-12  3:4:5:6:8  2.15  G2,C3,E3,G3,C4
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

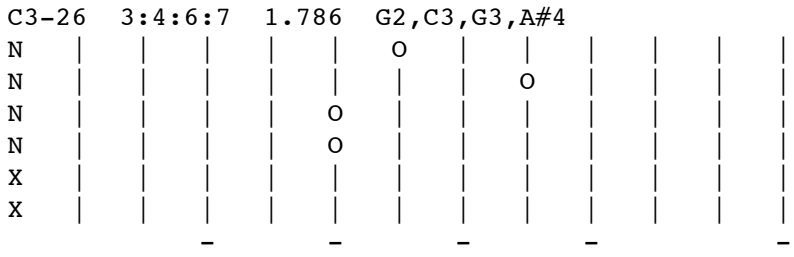
C3-13  3:4:3:7  2.119  G2,C3,G2,A#4
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   |   O   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

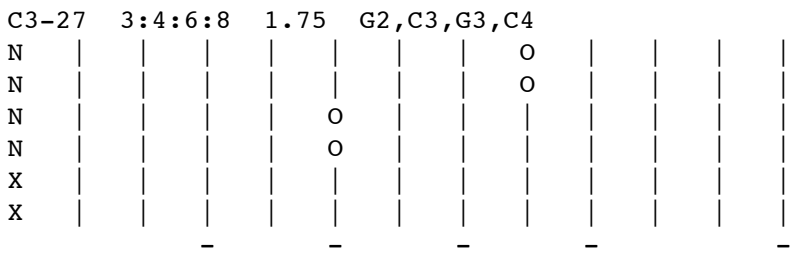
C3-14  3:4:5:7:8  2.102  G2,C3,E3,A#4,C4
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   |   |   O   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

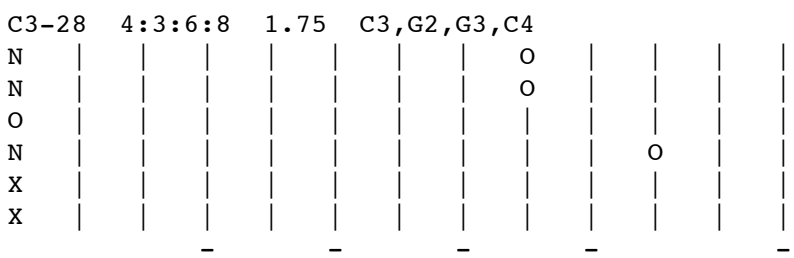
C3-15  3:4:6:7:9  2.008  G2,C3,G3,A#4,D4
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   |   O   |
N   |   |   |   |   |   |   |   |   |   |   |   O
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

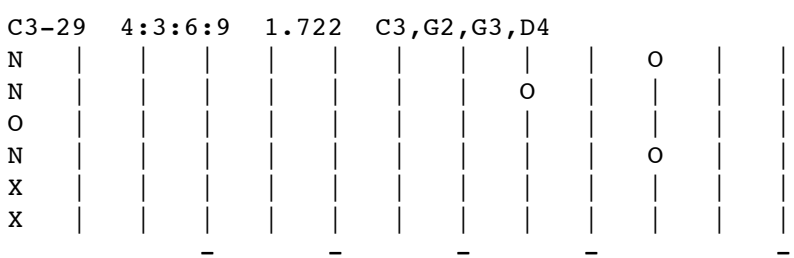

C3-16 3:4:6:7:10 1.986 G2,C3,G3,A#4,E4
C3-17 3:4:5:5 1.967 G2,C3,E3,E3
C3-18 3:4:5:6 1.9 G2,C3,E3,G3
C3-19 3:4:5:6 1.9 G2,C3,E3,G3
C3-20 4:3:6:5 1.9 C3,G2,G3,E3

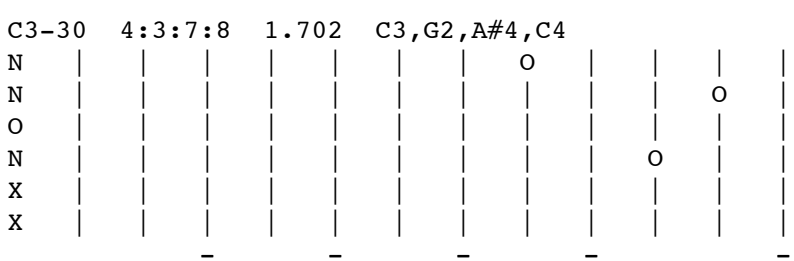

C3-21 3:4:5:7 1.852 G2,C3,E3,A#4
C3-22 3:4:5:7 1.852 G2,C3,E3,A#4
C3-23 4:3:7:5 1.852 C3,G2,A#4,E3
C3-24 3:4:5:8 1.817 G2,C3,E3,C4
C3-25 3:4:6:7 1.786 G2,C3,G3,A#4

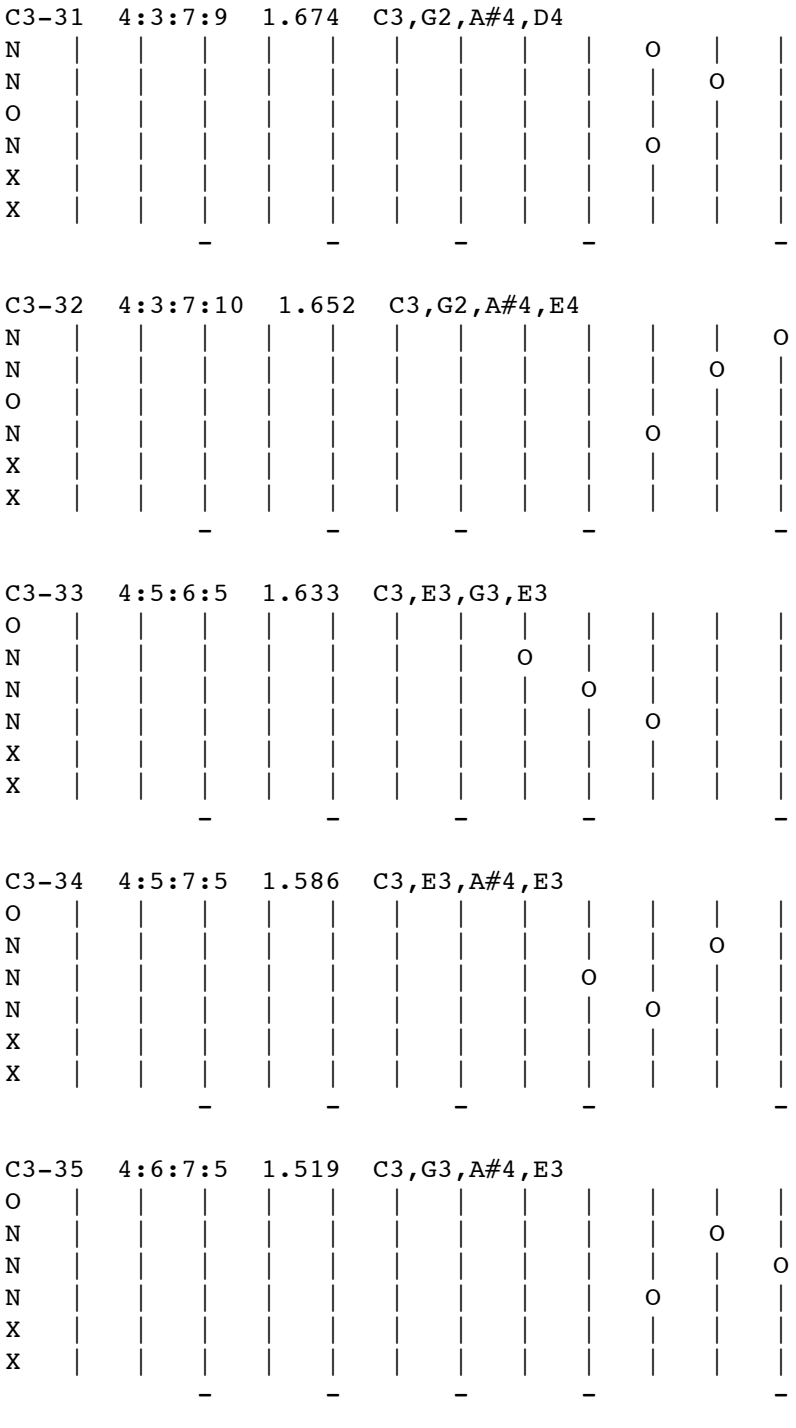

C3-26 3:4:6:7 1.786 G2,C3,G3,A#4
N O
N O
N O
N O
X
X


C3-27 3:4:6:8 1.75 G2,C3,G3,C4
N O
N O
N O
N O
X
X


C3-28 4:3:6:8 1.75 C3,G2,G3,C4
N O
N O
O
N O
X
X


C3-29 4:3:6:9 1.722 C3,G2,G3,D4
N O
N O
O
N O
X
X


C3-30 4:3:7:8 1.702 C3,G2,A#4,C4
N O
N O
O
N O
X
X


C3-31 4:3:7:9 1.674 C3,G2,A#4,D4
C3-32 4:3:7:10 1.652 C3,G2,A#4,E4
C3-33 4:5:6:5 1.633 C3,E3,G3,E3
C3-34 4:5:7:5 1.586 C3,E3,A#4,E3
C3-35 4:6:7:5 1.519 C3,G3,A#4,E3

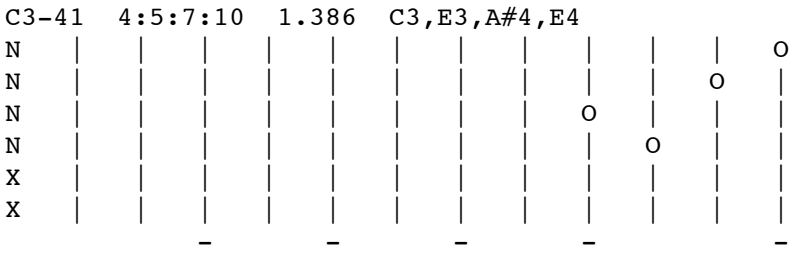
```
C3-36  3:4:6  1.5  G2,C3,G3,E3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

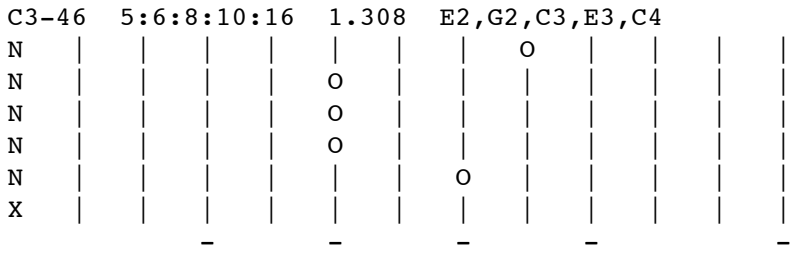
C3-37  4:5:6:8  1.483  C3,E3,G3,C4
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

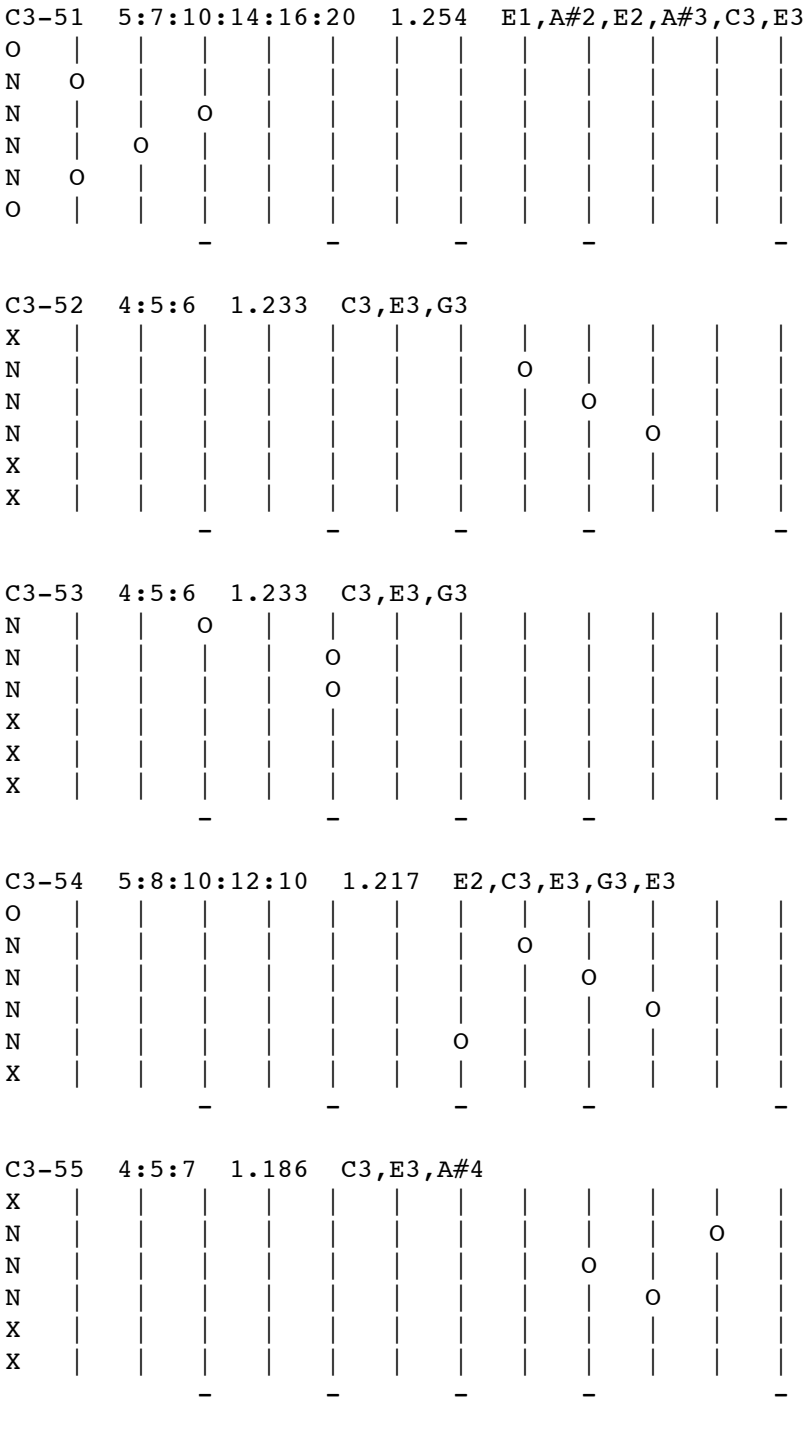
C3-38  4:5:6:9  1.456  C3,E3,G3,D4
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

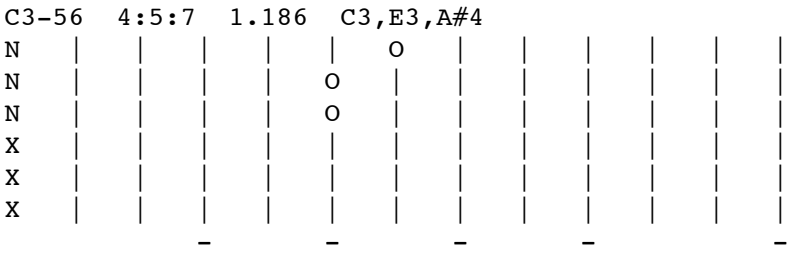
C3-39  4:5:7:8  1.436  C3,E3,A#4,C4
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   |   |   O   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

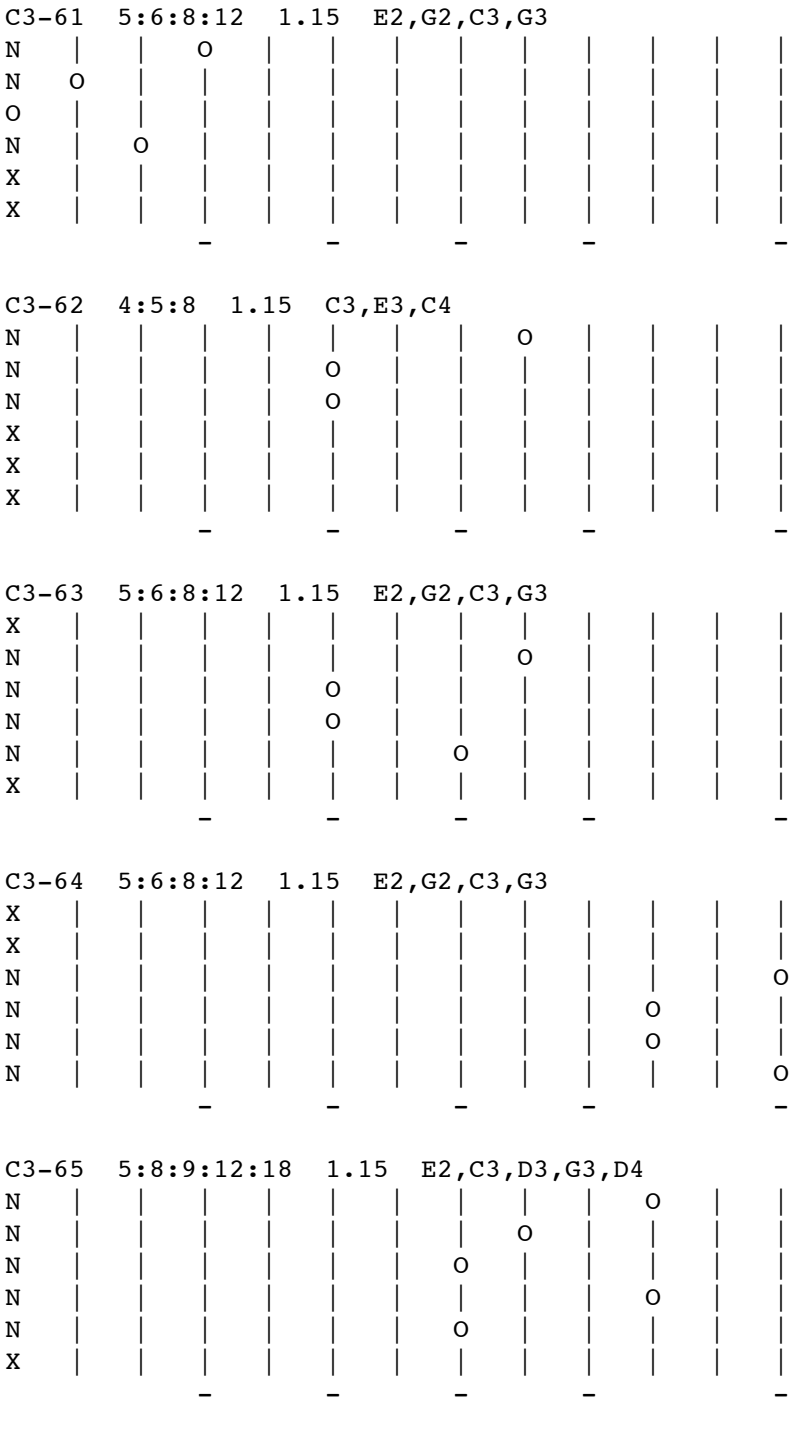
C3-40  4:5:7:9  1.408  C3,E3,A#4,D4
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   |   O   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```


C3-41 4:5:7:10 1.386 C3,E3,A#4,E4
C3-42 5:6:8:12:10 1.35 E2,G2,C3,G3,E3
C3-43 4:6:7:9 1.341 C3,G3,A#4,D4
C3-44 5:6:8:10:14 1.326 E2,G2,C3,E3,A#4
C3-45 4:6:7:10 1.319 C3,G3,A#4,E4


C3-46 5:6:8:10:16 1.308 E2,G2,C3,E3,C4
C3-47 5:7:8:12:10 1.302 E2,A#3,C3,G3,E3
C3-48 5:6:8:12:14 1.293 E2,G2,C3,G3,A#4
C3-49 5:7:8:10:14 1.278 E2,A#3,C3,E3,A#4
C3-50 5:7:10:12:16:20 1.277 E1,A#2,E2,G2,C3,E3


C3-51 5:7:10:14:16:20 1.254 E1,A#2,E2,A#3,C3,E3
C3-52 4:5:6 1.233 C3,E3,G3
C3-53 4:5:6 1.233 C3,E3,G3
C3-54 5:8:10:12:10 1.217 E2,C3,E3,G3,E3
C3-55 4:5:7 1.186 C3,E3,A#4


C3-56 4:5:7 1.186 C3,E3,A#4
C3-57 5:6:8:10 1.183 E2,G2,C3,E3
C3-58 5:6:8:10 1.183 E2,G2,C3,E3
C3-59 5:7:10:12:16 1.177 E1,A#2,E2,G2,C3
C3-60 5:7:10:14:16 1.153 E1,A#2,E2,A#3,C3


C3-61 5:6:8:12 1.15 E2,G2,C3,G3
C3-62 4:5:8 1.15 C3,E3,C4
C3-63 5:6:8:12 1.15 E2,G2,C3,G3
C3-64 5:6:8:12 1.15 E2,G2,C3,G3
C3-65 5:8:9:12:18 1.15 E2,C3,D3,G3,D4

```
C3-66  5:8:6:12  1.15  E2,C3,G2,G3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C3-67  5:7:8:10  1.136  E2,A#3,C3,E3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C3-68  5:7:8:10  1.136  E2,A#3,C3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C3-69  5:8:10:12:18  1.128  E2,C3,E3,G3,D4
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C3-70  5:7:8:12  1.102  E2,A#3,C3,G3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

```
C3-71  5:7:8:12  1.102  E2,A#3,C3,G3
N   |   |   O   |   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C3-72  5:8:9:10  1.072  E2,C3,D3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C3-73  5:8:10:10  1.05  E2,C3,E3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C3-74  5:8:9:12  1.039  E2,C3,D3,G3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C3-75  5:8:9:12  1.039  E2,C3,D3,G3
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

```
C3-76  5:8:10:12  1.017  E2,C3,E3,G3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C3-77  5:8:10:12  1.017  E2,C3,E3,G3
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C3-78  6:8:9:10  1.006  G2,C3,D3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C3-79  5:10:12:16:20  0.992  E1,E2,G2,C3,E3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C3-80  5:6:8  0.983   E2,G2,C3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   |   |   O
            -       -       -       -           -
```

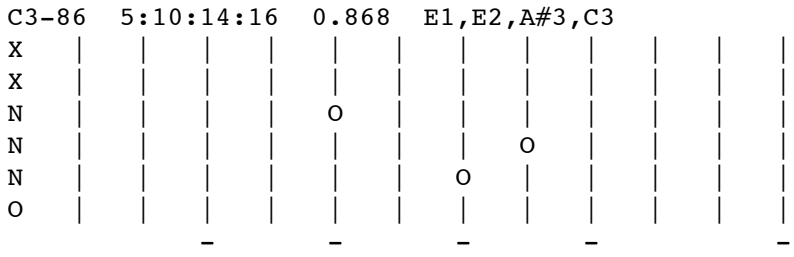
```
C3-81  6:8:9:12  0.972   G2,C3,D3,G3
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

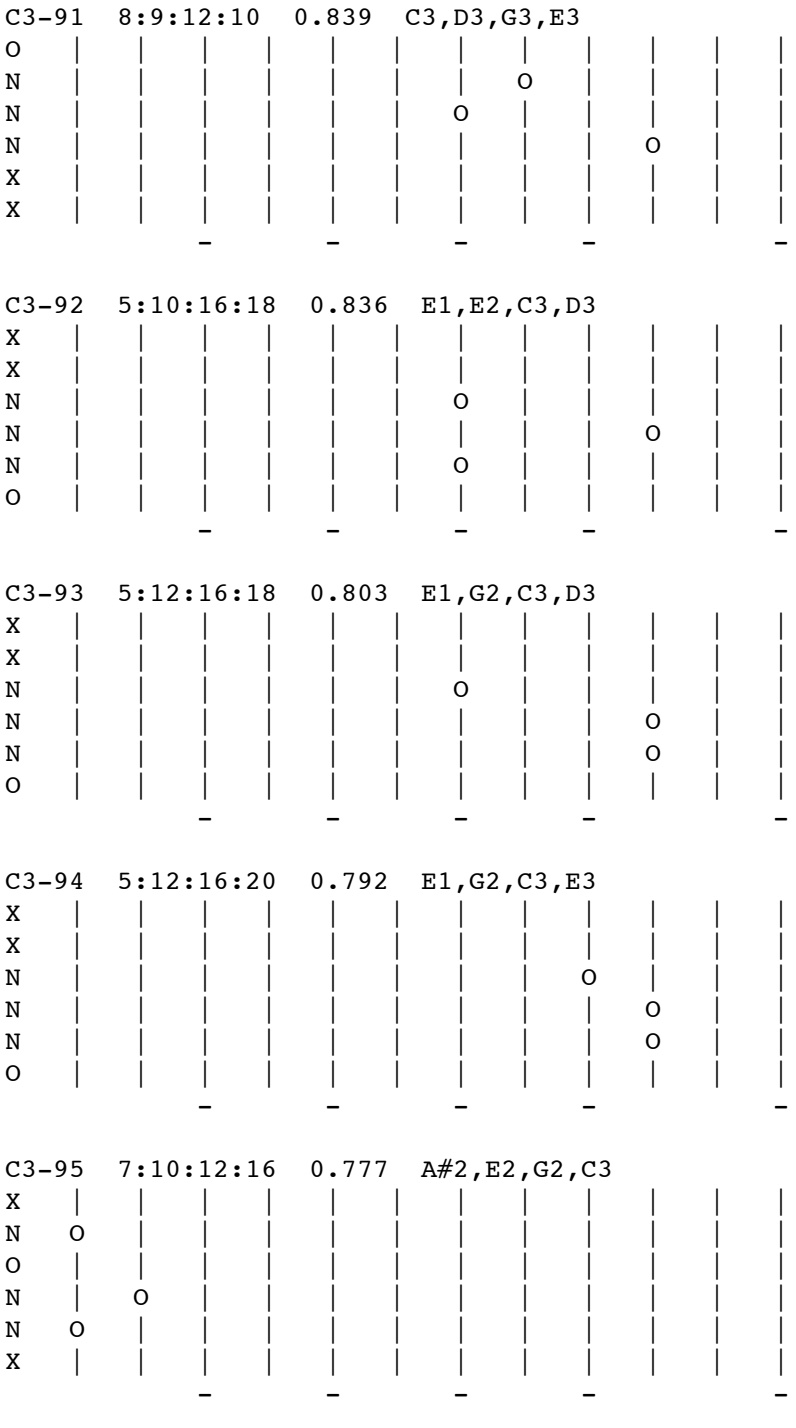
C3-82  6:8:9:12  0.972   G2,C3,D3,G3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

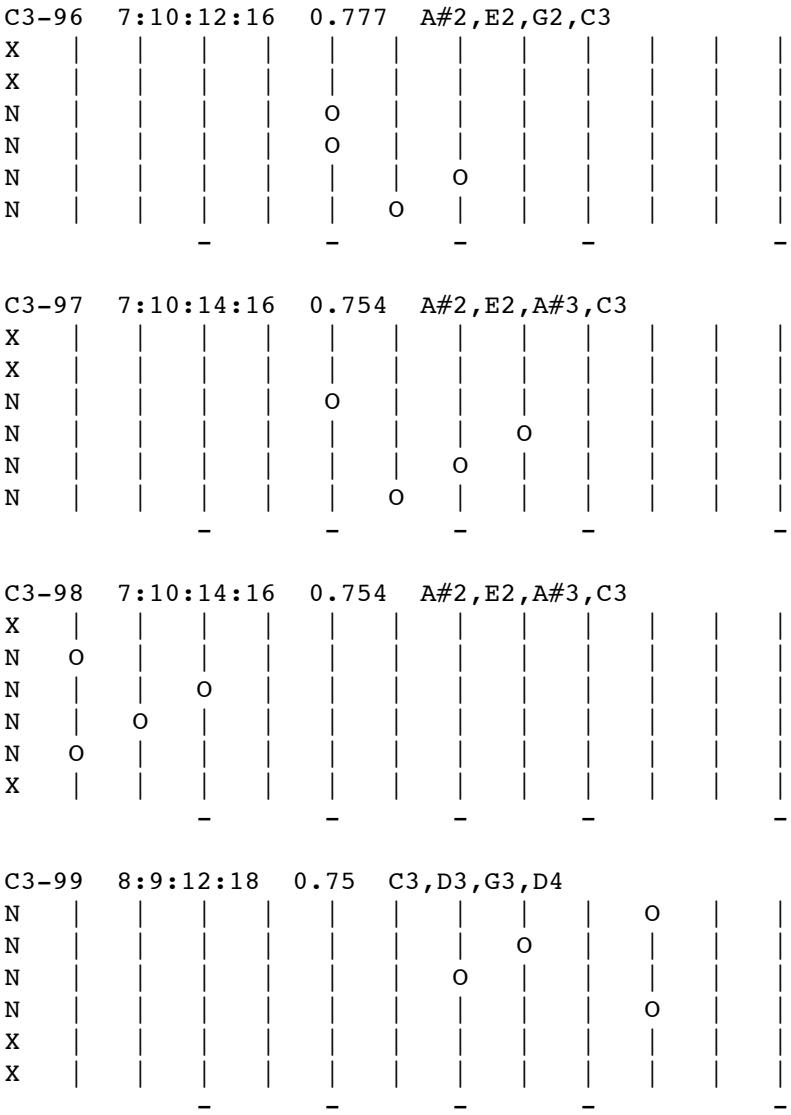
C3-83  5:10:14:16:20  0.968  E1,E2,A#3,C3,E3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

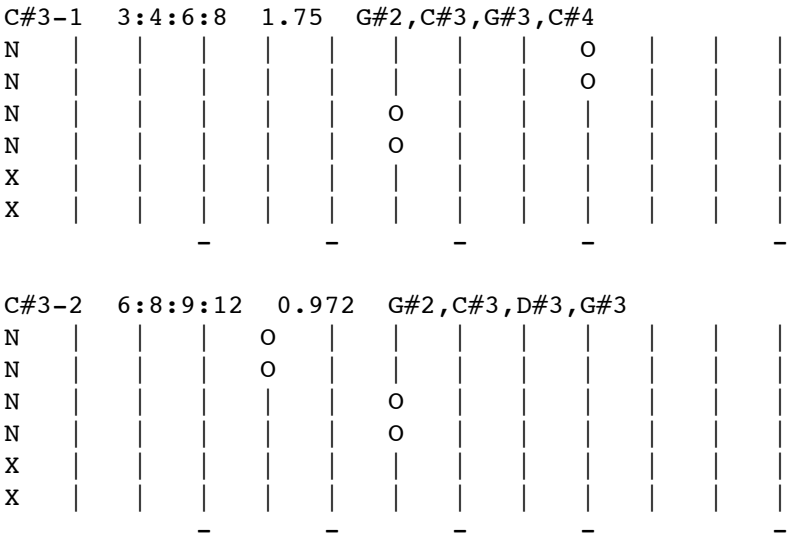
C3-84  7:8:12:10  0.902   A#3,C3,G3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

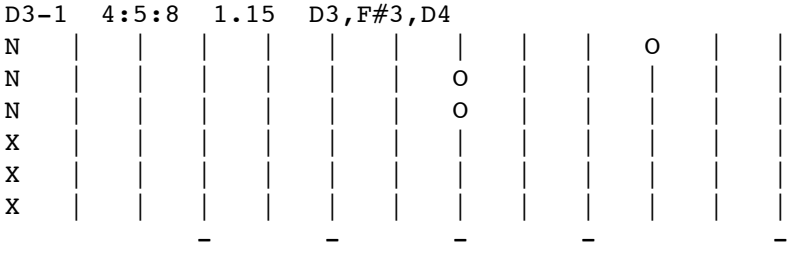
C3-85  5:10:12:16  0.892   E1,E2,G2,C3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

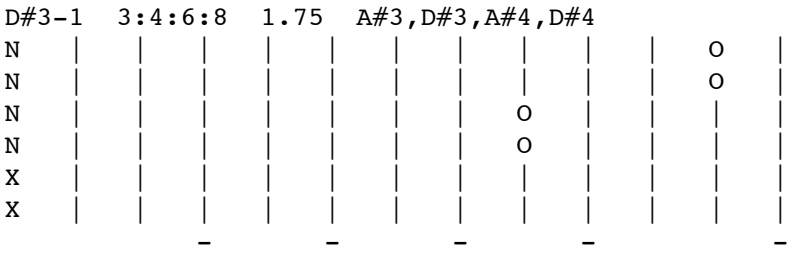

C3-86 5:10:14:16 0.868 E1,E2,A#3,C3
X
X
N
N
N
O
C3-87 7:8:10:16 0.861 A#3,C3,E3,C4
N
N
N
N
X
X
C3-88 5:12:16:12 0.858 E1,G2,C3,G2
X
X
O
N
N
O
C3-89 5:8:10 0.85 E2,C3,E3
X
N
N
N
X
X
C3-90 7:8:12:14 0.845 A#3,C3,G3,A#4
N
N
N
N
X
X


C3-91 8:9:12:10 0.839 C3,D3,G3,E3
C3-92 5:10:16:18 0.836 E1,E2,C3,D3
C3-93 5:12:16:18 0.803 E1,G2,C3,D3
C3-94 5:12:16:20 0.792 E1,G2,C3,E3
C3-95 7:10:12:16 0.777 A#2,E2,G2,C3


C3-96 7:10:12:16 0.777 A#2,E2,G2,C3
C3-97 7:10:14:16 0.754 A#2,E2,A#3,C3
C3-98 7:10:14:16 0.754 A#2,E2,A#3,C3
C3-99 8:9:12:18 0.75 C3,D3,G3,D4


C#3-1 3:4:6:8 1.75 G#2,C#3,G#3,C#4
N
N
N
N
X
X
C#3-2 6:8:9:12 0.972 G#2,C#3,D#3,G#3
N
N
N
N
X
X


D3-1 4:5:8 1.15 D3,F#3,D4
N
N
N
X
X
X


D#3-1 3:4:6:8 1.75 A#3,D#3,A#4,D#4
N
N
N
N
X
X

```
E3-1  3:4:3:4  2.333  B3,E3,B3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -

E3-2  3:4:3:6  2.167  B3,E3,B3,B4
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -

E3-3  3:4:3:8  2.083  B3,E3,B3,E4
N   |   |   |   |   |   |   |   |   |   |   |   O
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -

E3-4  3:4:5:4  2.067  B3,E3,G#3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -

E3-5  3:4:6:4  2.0  B3,E3,B4,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   |   |   O
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -
```

```
E3-6  3:4:5:6  1.9  B3,E3,G#3,B4
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -

E3-7  3:4:5:8  1.817  B3,E3,G#3,E4
N   |   |   |   |   |   |   |   |   |   |   |   O
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -

E3-8  3:4:6:8  1.75  B3,E3,B4,E4
N   |   |   |   |   |   |   |   |   |   |   |   O
N   |   |   |   |   |   |   |   |   |   |   |   O
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -

E3-9  5:6:6:8  1.317  G#2,B3,B3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -

E3-10  5:6:8:8  1.233  G#2,B3,E3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -
```

```
E3-11  5:8:6:8  1.233  G#2,E3,B3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

E3-12  5:6:9:8  1.206  G#2,B3,F#3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

E3-13  5:6:8:10  1.183  G#2,B3,E3,G#3
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

E3-14  5:6:8:12  1.15  G#2,B3,E3,B4
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

E3-15  6:9:6:8  1.139  B3,F#3,B3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

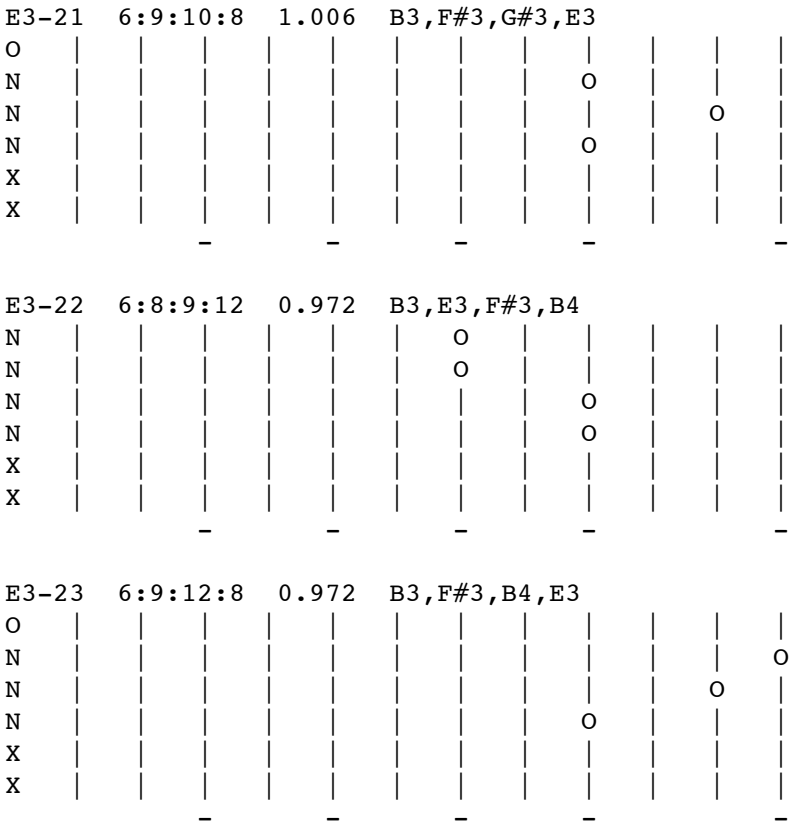
```
E3-16  5:8:9:8  1.122  G#2,E3,F#3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -

E3-17  5:8:10:8  1.1  G#2,E3,G#3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -

E3-18  6:8:9:8  1.056  B3,E3,F#3,E3
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -

E3-19  5:8:9:12  1.039  G#2,E3,F#3,B4
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -

E3-20  5:8:10:12  1.017  G#2,E3,G#3,B4
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
              -       -       -       -           -
```


E3-21 6:9:10:8 1.006 B3,F#3,G#3,E3
E3-22 6:8:9:12 0.972 B3,E3,F#3,B4
E3-23 6:9:12:8 0.972 B3,F#3,B4,E3

```
F3-1  3:4:5:6  1.9  C3,F3,A4,C4
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

F3-2  3:4:5:7  1.852  C3,F3,A4,D#4
N   |   |   |   |   |   |   |   |   |   |   O   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

F3-3  5:5:10:12:16  1.292  A2,A2,A3,C3,F3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
            -       -       -       -           -

F3-4  5:5:10:14:16  1.268  A2,A2,A3,D#3,F3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
            -       -       -       -           -

F3-5  6:5:10:14:16  1.201  C2,A2,A3,D#3,F3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
            -       -       -       -           -
```

```
F3-6  5:6:8:10  1.183  A3,C3,F3,A4
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

F3-7  5:7:10:12:16  1.177  A2,D#2,A3,C3,F3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
            -       -       -       -           -

F3-8  5:7:10:12:16  1.177  A2,D#2,A3,C3,F3
N   O   |   |   |   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

F3-9  6:5:10:16:18  1.169  C2,A2,A3,F3,G3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
            -       -       -       -           -

F3-10  6:5:10:16:20  1.158  C2,A2,A3,F3,A4
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
            -       -       -       -           -
```

```
F3-11  5:6:8:12  1.15  A3,C3,F3,C4
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

F3-12  6:5:12:16:18  1.136  C2,A2,C3,F3,G3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
            -       -       -       -           -

F3-13  5:7:8:10  1.136  A3,D#3,F3,A4
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

F3-14  6:5:12:16:20  1.125  C2,A2,C3,F3,A4
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
            -       -       -       -           -

F3-15  6:7:10:12:16  1.111  C2,D#2,A3,C3,F3
N   O   |   |   |   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
N   O   |   |   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

```
F3-16  5:7:8:12  1.102  A3,D#3,F3,C4
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

F3-17  6:5:10:16  1.058  C2,A2,A3,F3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
            -       -       -       -           -

F3-18  5:8:9:12  1.039  A3,F3,G3,C4
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

F3-19  6:5:12:16  1.025  C2,A2,C3,F3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
            -       -       -       -           -

F3-20  5:8:10:12  1.017  A3,F3,A4,C4
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

```
F3-21  5:10:12:16:20  0.992  A2,A3,C3,F3,A4
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

F3-22  7:5:12:16  0.977  D#2,A2,C3,F3
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   |   O   |
            -       -       -       -           -

F3-23  6:8:9:12  0.972  C3,F3,G3,C4
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

F3-24  5:10:14:16:20  0.968  A2,A3,D#3,F3,A4
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

F3-25  5:10:12:16  0.892  A2,A3,C3,F3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

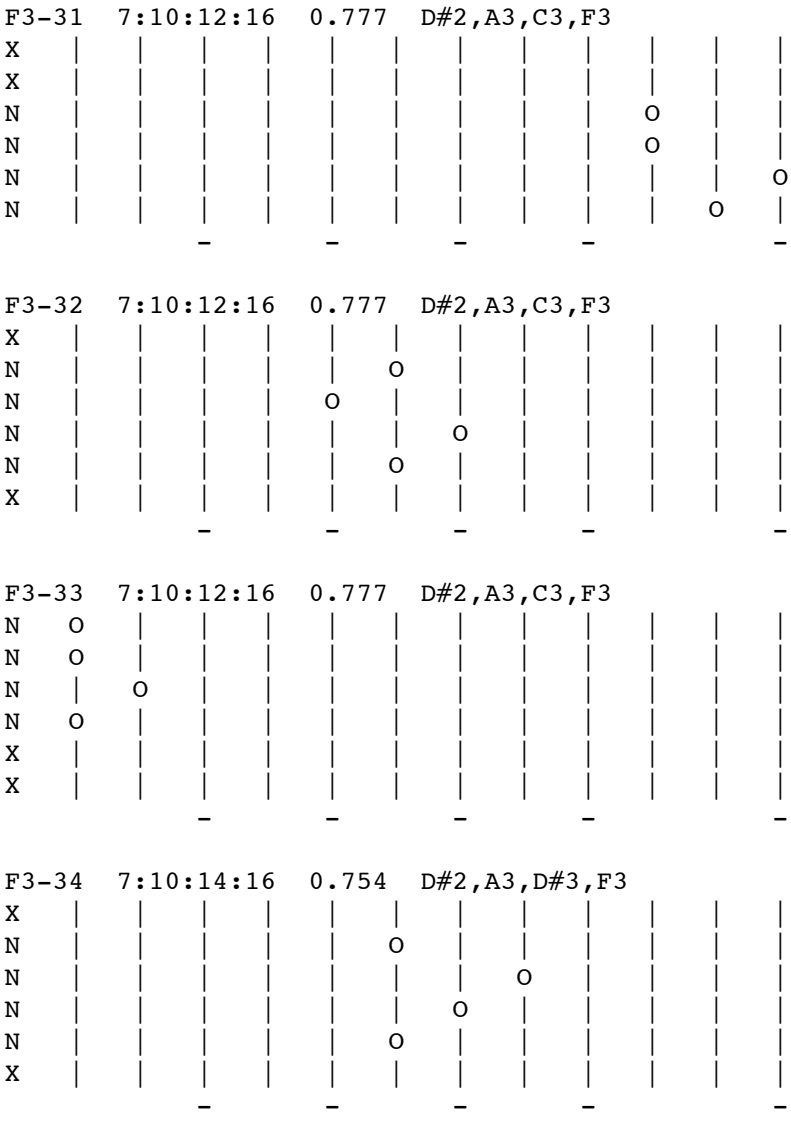
```
F3-26  5:10:14:16  0.868  A2,A3,D#3,F3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   O   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

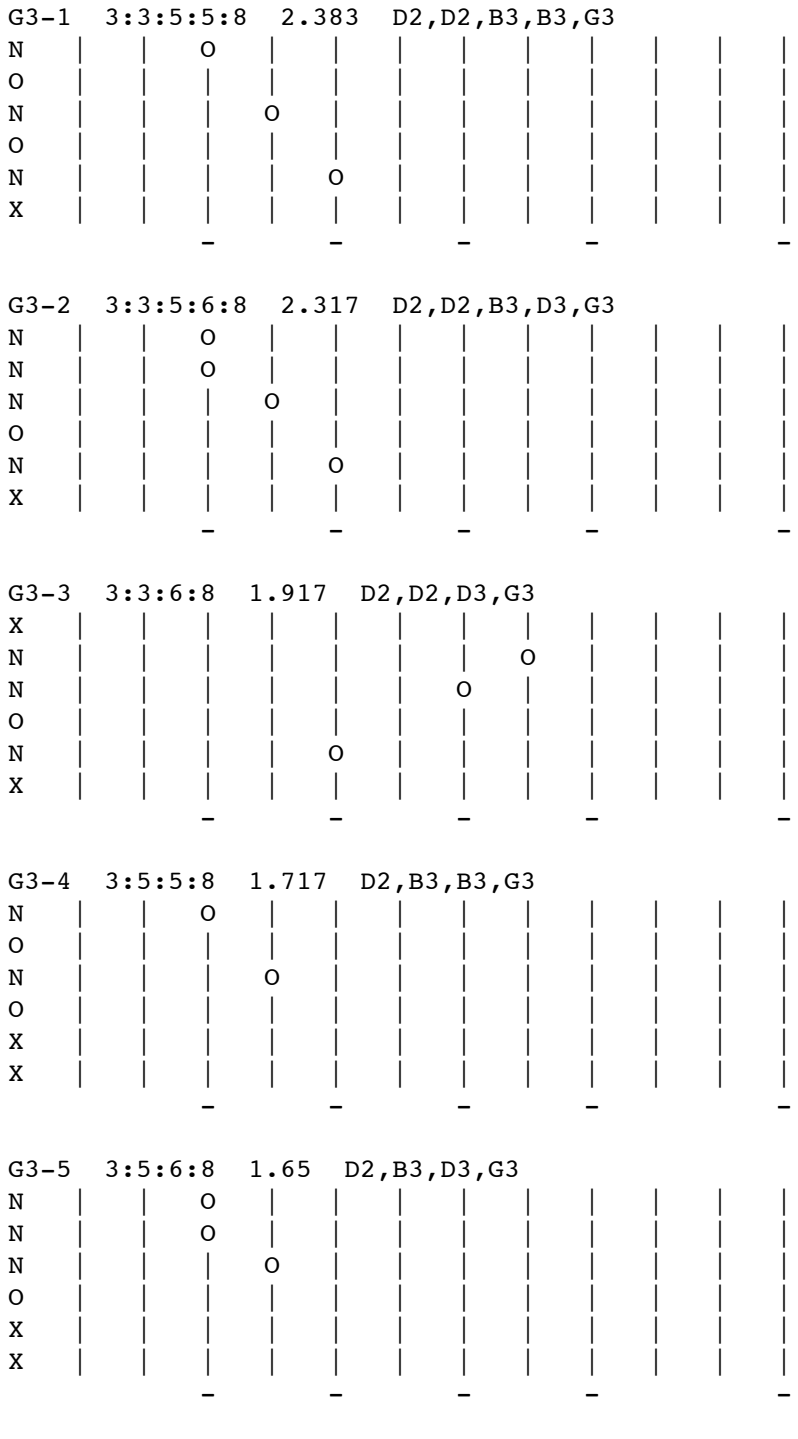
F3-27  5:10:16:18  0.836  A2,A3,F3,G3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

F3-28  5:10:16:20  0.825  A2,A3,F3,A4
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

F3-29  5:12:16:18  0.803  A2,C3,F3,G3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

F3-30  5:12:16:20  0.792  A2,C3,F3,A4,
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```


F3-31 7:10:12:16 0.777 D#2,A3,C3,F3
F3-32 7:10:12:16 0.777 D#2,A3,C3,F3
F3-33 7:10:12:16 0.777 D#2,A3,C3,F3
F3-34 7:10:14:16 0.754 D#2,A3,D#3,F3


G3-1 3:3:5:5:8 2.383 D2,D2,B3,B3,G3
G3-2 3:3:5:6:8 2.317 D2,D2,B3,D3,G3
G3-3 3:3:6:8 1.917 D2,D2,D3,G3
G3-4 3:5:5:8 1.717 D2,B3,B3,G3
G3-5 3:5:6:8 1.65 D2,B3,D3,G3

```
G3-6  3:8:5:12  1.483  D2,G3,B3,D4
N   |   |   |   |   |   |   |   |   |   O   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   |   |   O
O   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G3-7  3:6:8:10  1.45  D2,D3,G3,B4
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G3-8  3:6:8:12  1.417  D2,D3,G3,D4
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

G3-9  5:6:6:12:16  1.358  B2,D2,D2,D3,G3
X   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
            -       -       -       -           -

G3-10  3:8:10:12  1.283  D2,G3,B4,D4
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   |   |   |   |   O
N   |   |   |   |   |   |   |   |   |   |   |   O
O   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

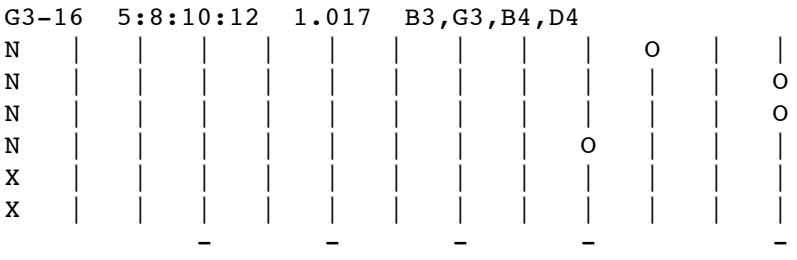
```
G3-11  5:6:10:10:16  1.258  B2,D2,B3,B3,G3
N   |   |   O   |   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

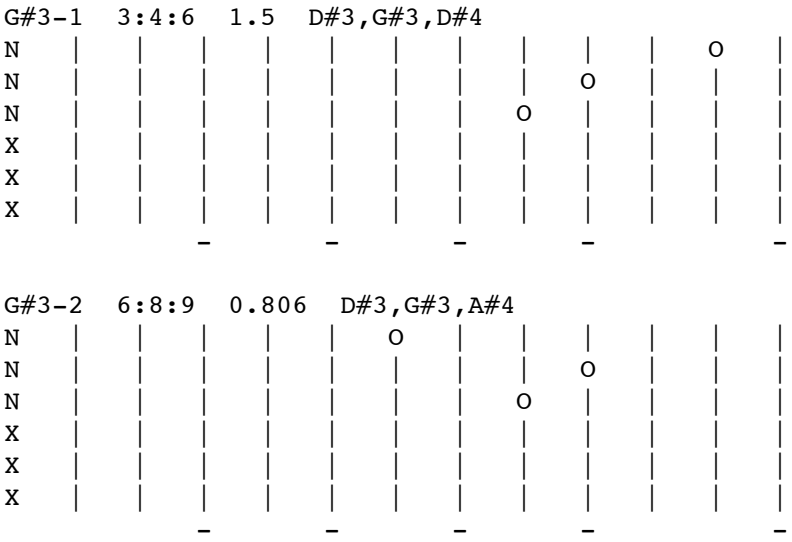
G3-12  5:6:10:12:16  1.225  B2,D2,B3,D3,G3
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   O   |   |   |   |   |   |   |   |   |
N   |   |   |   O   |   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   O   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

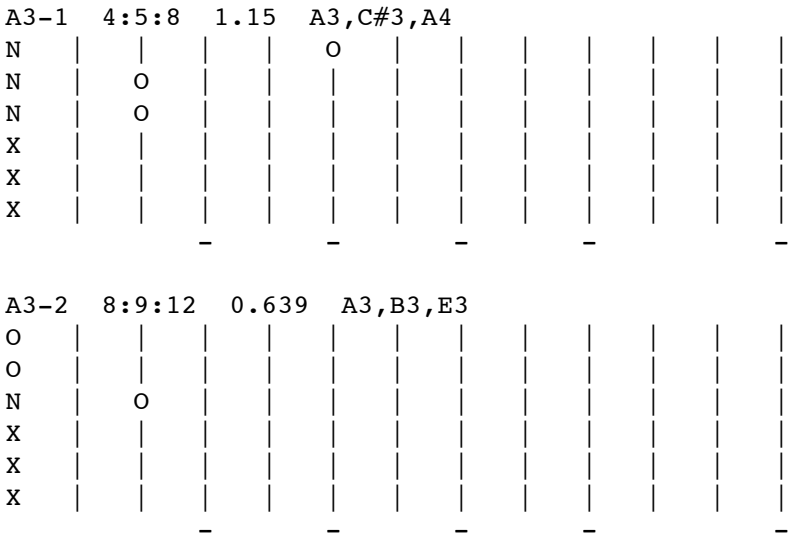
G3-13  5:8:5:12  1.217  B3,G3,B3,D4
N   |   |   |   |   |   |   |   |   |   O   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   |   |   |   |   O
N   |   |   |   |   |   |   |   |   O   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

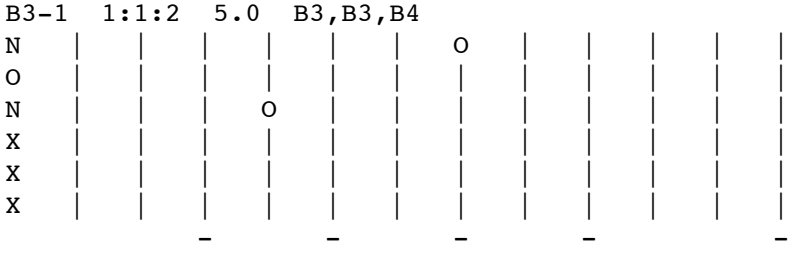
G3-14  5:6:8:10  1.183  B3,D3,G3,B4
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

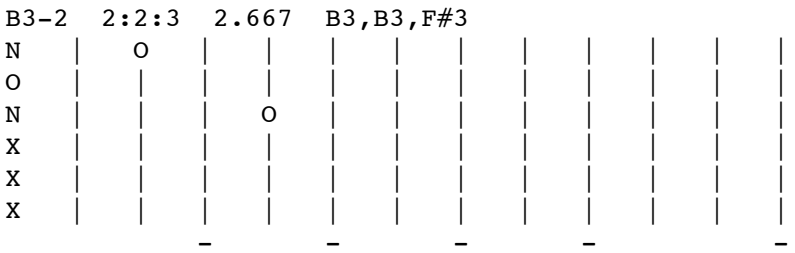
G3-15  5:6:8:12  1.15  B3,D3,G3,D4
N   |   |   |   |   |   |   |   |   |   O   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

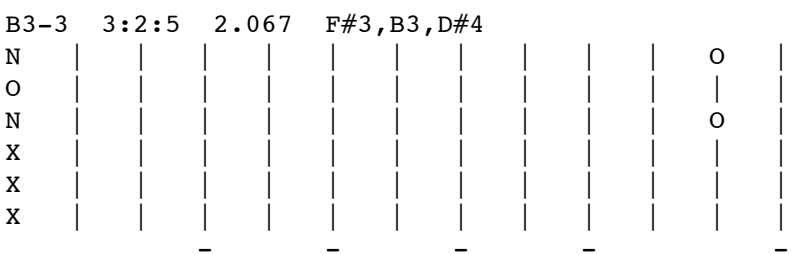

G3-16 5:8:10:12 1.017 B3,G3,B4,D4
N
N
N
N
X
X

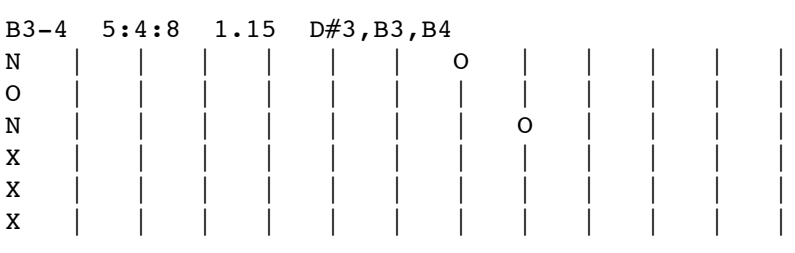

G#3-1 3:4:6 1.5 D#3,G#3,D#4
N
N
N
X
X
X
G#3-2 6:8:9 0.806 D#3,G#3,A#4
N
N
N
X
X
X

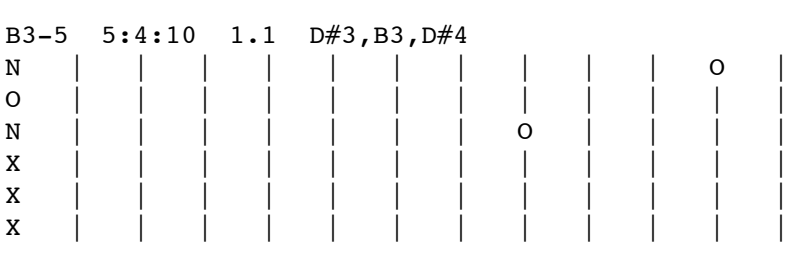

A3-1 4:5:8 1.15 A3,C#3,A4
A3-2 8:9:12 0.639 A3,B3,E3


B3-1 1:1:2 5.0 B3,B3,B4
N O N X X X


B3-2 2:2:3 2.667 B3,B3,F#3
N O N X X X


B3-3 3:2:5 2.067 F#3,B3,D#4
N O N X X X


B3-4 5:4:8 1.15 D#3,B3,B4
N O N X X X


B3-5 5:4:10 1.1 D#3,B3,D#4
N O N X X X

```
C4-1  3:3:5:8  1.983  G2,G2,E3,C4
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C4-2  3:3:6:8  1.917  G2,G2,G3,C4
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C4-3  5:6:6:12:16  1.358  E2,G2,G2,G3,C4
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C4-4  5:7:6:10:16  1.344  E2,A#3,G2,E3,C4
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C4-5  5:7:6:12:16  1.311  E2,A#3,G2,G3,C4
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   O   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```

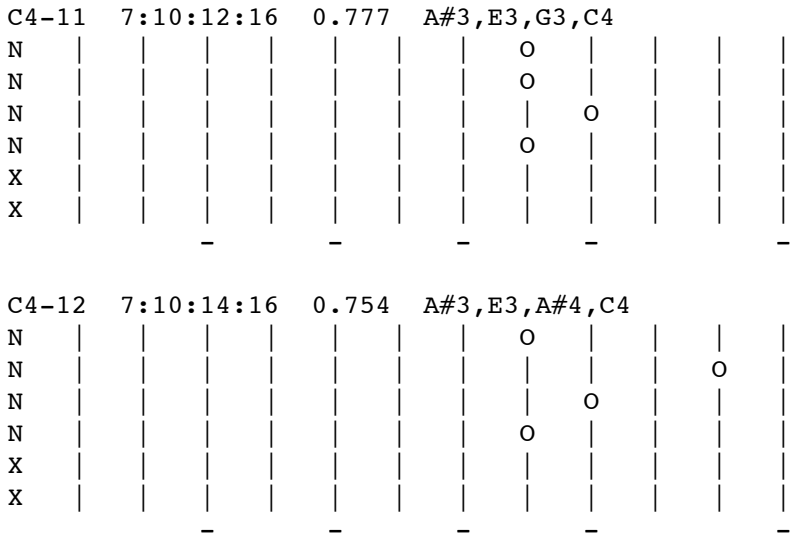
```
C4-6  6:7:10:12:16  1.111  G2,A#3,E3,G3,C4
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C4-7  6:7:10:14:16  1.087  G2,A#3,E3,A#4,C4
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   |   |   O   |
N   |   |   |   |   |   |   |   |   O   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   |   O   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C4-8  7:6:10:16  0.944  A#3,G2,E3,C4
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   O   |   |   |   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C4-9  7:6:12:16  0.911  A#3,G2,G3,C4
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -

C4-10  7:6:14:16  0.887  A#3,G2,A#4,C4
N   |   |   |   |   |   |   |   O   |   |   |   |
N   |   |   |   |   |   |   |   |   |   |   O   |
O   |   |   |   |   |   |   |   |   |   |   |   |
N   |   |   |   |   |   |   |   O   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
X   |   |   |   |   |   |   |   |   |   |   |   |
            -       -       -       -           -
```


C4-11 7:10:12:16 0.777 A#3,E3,G3,C4
C4-12 7:10:14:16 0.754 A#3,E3,A#4,C4

Chapter Five
Strongly Rooted Scales

Look at the this scale on G (6/5)...

1/1, 10/9, 5/4, 4/3, 3/2, 5/3, 15/8, 2/1.

Multiply each ratio by 72 to get...

72:80:90:96:108:120:135:144

These numbers above separated by colons make the IRS (Integer Representation of a Scale) of this scale. Big numbers and no P2s, no 1, 2, 4, 8 or 16. Sure the first note (72) does sound somewhat rooted but not as obviously rooted as a 1 or 2 or 4 or 8 or 16 would be. Cutting out 10/9 and 15/8 and multiplying the ratios by 12 we get...

12:15:16:18:20:24

This scale contains a P2 (16) so the 16 is the root note of the scale even though it is not the lowest note. As I said before if the IRS of a scale contains a 1, 2, 4, 8 or 16 then the lowest of these that occurs is the root or tonic of the scale. I think that higher powers of 2 like 32, 64, 128 etc. don't count as roots or tonics.

Because the notes (or corresponding chords) are played in sequence and not simultaneously there is no need to consider the IRS of a scale (except to see if it contains a P2, if it does it is strongly rooted). I suspect that a *Sum of Parts* approach would be more appropriate for evaluating the strengths of scales. So look at each pair of notes in the scale (e.g. pair 12 and 15 in the scale above which simplifies to 4:5), simplify them if possible, and then add their strength values from the 2/n + 2/d formula for each pair. This should give an idea of the strength of the scale. A scale with eight notes (1/1 and 2/1 and six other notes in between)

contains 28 pairs of notes.

As long as each note pairs nicely with each other note (see list of good melodic intervals on pages 18 & 19 within 8.474 cents accuracy, and the scale contains a power of 2 (1, 2, 4, 8 or 16) the scale should be strongly rooted and acceptable.

The first scale on A is E, A, C#, E. The IRS of the scale is 3:4:5:6 and the A (or 4) is clearly the root note. Try playing these notes on any regular guitar or keyboard. The second note is clearly the root note even though it is not the lowest note.

The scales listed below can also be treated as chord progressions or chord groups. If the root notes of strongly rooted chords in a progression or chord group all correspond to any of the scales listed below the progression should be acceptable. The notes or chords can be played in any order but I prefer to "land" on the root note or chord. In other words I finish every musical phrase with the root note or chord of the scale/chord group I'm using.

Note that it is possible that one or more notes in one chord may not pair nicely melodically with one or more notes in another chord in the group. This may not be hugely important but a much stricter approach is to ensure that *every* note in any given chord pairs nicely melodically with *every* note in every other chord (i.e. any pair of notes should be within 8.474 cents of any just melodic interval n/d where 2/n + 2/d is equal to or greater than 0.2).

This is where the lower strength (strength <0.75) chords can shine. Why use low strength chords when much stronger chords are available? Because if you want to be very strict with your chord progressions sometimes strong chords are unavailable and a lower strength chord has to be used instead.

Strongly Rooted Scales or Chord Groups

Letters in [square brackets] indicate the root note or chord.

E
B, [E], G#, B 3:4:5:6
[E], G#, B, E 4:5:6:8
G#, B, [E], F#, G# 5:6:8:9:10
B, [E], F#, G#, B 6:8:9:10:12
[E], F#, G#, B, D#, E 8:9:10:12:15:16
F#, G#, B, D#, [E], F# 9:10:12:15:16:18
B, D#, [E], F#, G#, B 12:15:16:18:20:24

F
C, [F], A, C 3:4:5:6
[F], A, C, D#, F 4:5:6:7:8
A, C, D#, [F], G, A 5:6:7:8:9:10
C, D#, [F], G, A, C 6:7:8:9:10:12
D#, [F], G, A, C, D# 7:8:9:10:12:14
[F], G, A, C, D#, E, F 8:9:10:12:14:15:16
G, A, C, D#, E, [F], G 9:10:12:14:15:16:18
A, C, D#, E, [F], G, A 10:12:14:15:16:18:20
C, D#, E, [F], G, A, A#, C 12:14:15:16:18:20:21:24
D#, E, [F], G, A, A#, C, D 14:15:16:18:20:21:24:27
D#, E, [F], G, A, A#, C, D# 14:15:16:18:20:21:24:28
D#, E, [F], G, A, A#, C#, D 14:15:16:18:20:21:25:27
D#, E, [F], G, A, A#, C#, D# 14:15:16:18:20:21:25:28
E, [F], G, A, A#, C, D# 15:16:18:20:21:24:28
[F], G, A, A#, C, 16:18:20:21:24

F#
A#, [F#], A# 5:8:10

G
D, [G], B, D 3:4:5:6
[G], B, D, G 4:5:6:8
B, D, [G], B 5:6:8:10
[G], B, D, F#, G 8:10:12:15:16
B, D, F#, [G], B 10:12:15:16:20
D, F#, [G], B, D 12:15:16:20:24

G#
D#, [G#], A#, D# 6:8:9:12
[G#], A#, D#,G# 8:9:12:16
D#, [G#], A, A#, D# 12:16:17:18:24

A
E, [A], C#, E 3:4:5:6
[A], C#, E, A 4:5:6:8
C#, E, [A], B, C# 5:6:8:9:10
E, [A], B, C#, E 6:8:9:10:12
[A], B, C#, E, G#, A 8:9:10:12:15:16
B, C#, E, G#, [A], B 9:10:12:15:16:18
C#, E, G#, [A], B, C# 10:12:15:16:18:20
E, G#, [A], B, C#, E 12:15:16:18:20:24
G#, [A], B, C#, E, G# 15:16:18:20:24:30

B
F#, [B], D#, F# 3:4:5:6
[B], D#, F#, B 4:5:6:8
D#, F#, [B], D# 5:6:8:10
[B], D#, F#, A#, B 8:10:12:15:16
F#, A#, [B], D#, F# 12:15:16:20:24
A#, [B], D#, F#, A# 15:16:20:24:30

C
G, [C], E, G 3:4:5:6
[C], E, G, A#, C 4:5:6:7:8
E, G, A#, [C], E 5:6:7:8:9:10
G, A#, [C], D, E, G 6:7:8:9:10:12
A#, [C], D, E, G, A# 7:8:9:10:12:14
[C], D, E, G, A#, B, C 8:9:10:12:14:15:16
D, E, G, A#, B, [C], D 9:10:12:14:15:16:18
G, A#, B, [C], D, E, G 12:14:15:16:18:20:24
A#, B, [C], D, E, G, A# 14:15:16:18:20:24:28
A#, B, [C], D, E, G#, A# 14:15:16:18:20:25:28
B, [C], D, E, G, A# 15:16:18:20:24:28
B, [C], D, E, G#, A# 15:16:18:20:25:28
[C], D, E, G# 16:18:20:25

C#
G#, [C#], D#, G# 6:8:9:12
[C#], D#, G#, C# 8:9:12:16

D
[D], F, F#, A# 16:19:20:25

D#
A#, [D#], E, A# 12:16:17:24
A#, [D#], A# 3:4:6

Chapter Six
6:8:9 Scales

The 31 scales in this chapter are not strongly rooted. No 1, 2, 4, 8 or 16 occurs in the IRS of any of the scales here. I'm including them because I want more seven notes per octave scales. The lowest note in each scale is not necessarily the root note or tonic. I suggest playing the eight notes listed in each scale below back and forth and listen for notes that could possibly be used as a root or tonic (these notes will sound somewhat resolved but not as resolved as a P2 would). There may be more than one note that could function as a root or tonic in a scale.

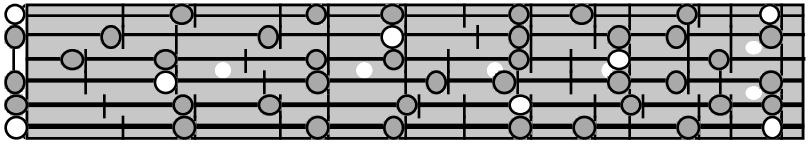
In each scale listed, every note pairs nicely with every other note melodically. That is: each pair of notes is within 8.474 cents of one of the good melodic intervals listed on pages 18 and 19. These scales can also be viewed as chord groups.

Each scale below has a 1/1, 4/3, 3/2 and a 2/1 with four extra notes added in between. If you multiply 1/1, 4/3 and 3/2 by 6 you get 6:8:9. I don't like having three or more notes in a scale bunched up close together. The only scale listed here that has this property is the last one: The Crow Scale on 9. I include this scale because I want to have at least one scale where the lowest note is on C (or 8/5).

There are twelve scales beginning on E, three on G, three on G#, twelve on B and one on C. Again, these lowest notes are not necessarily the root notes or tonics of the scales. So the white discs represent the lowest notes in the scales, *not* the tonics.

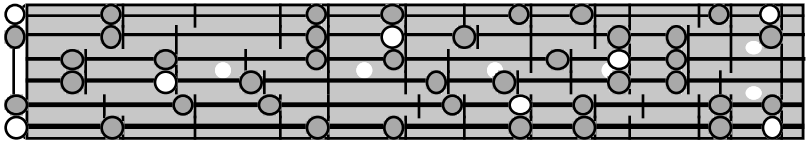
Melodic Major 1

1	3	5	6	8	9	11	13
0	204	385	498	702	815	1019	1200
1/1	9/8	5/4	4/3	3/2	8/5	9/5	2/1
E	F#	G#	A	B	C	D	E



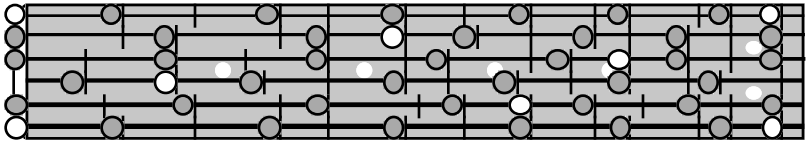
Arabian 1

1	2	5	6	8	9	12	13
0	113	385	498	702	815	1087	1200
1/1	16/15	5/4	4/3	3/2	8/5	15/8	2/1
E	F	G#	A	B	C	D#	E



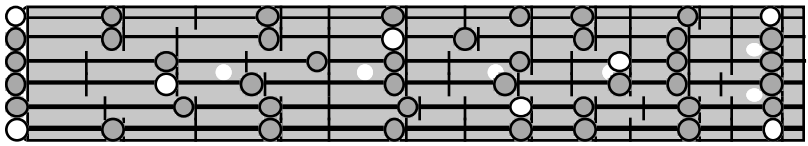
Neapolitan Major 1

1	2	4	6	8	10	12	13
0	113	317	498	702	883	1087	1200
1/1	16/15	6/5	4/3	3/2	5/3	15/8	2/1
E	F	G	A	B	C#	D#	E



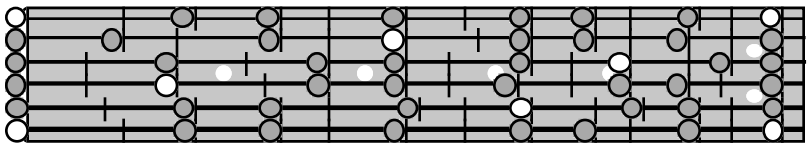
Phrygian 1

1	2	4	6	8	9	11	13
0	113	317	498	702	815	1019	1200
1/1	16/15	6/5	4/3	3/2	8/5	9/5	2/1
E	F	G	A	B	C	D	E



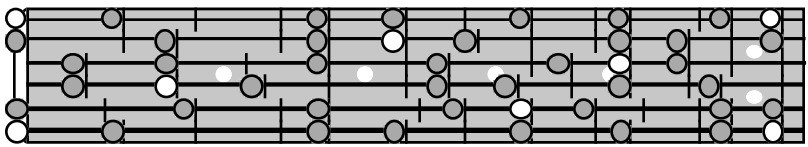
Natural Minor 1

1	3	4	6	8	9	11	13
0	204	317	498	702	815	1019	1200
1/1	9/8	6/5	4/3	3/2	8/5	9/5	2/1
E	F#	G	A	B	C	D	E



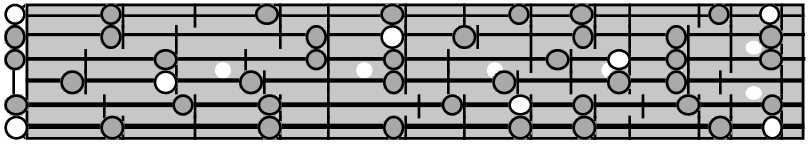
Gondolin 1

1	2	5	6	8	10	12	13
0	113	385	498	702	883	1087	1200
1/1	16/15	5/4	4/3	3/2	5/3	15/8	2/1
E	F	G#	A	B	C#	D#	E



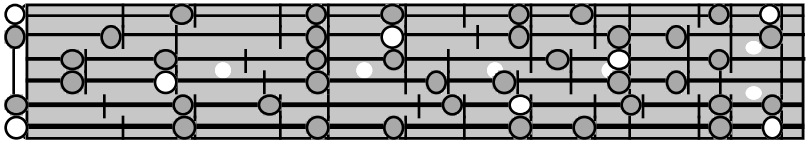
Neapolitan Minor 1

1	2	4	6	8	9	12	13
0	113	317	498	702	815	1087	1200
1/1	16/15	6/5	4/3	3/2	8/5	15/8	2/1
E	F	G	A	B	C	D#	E



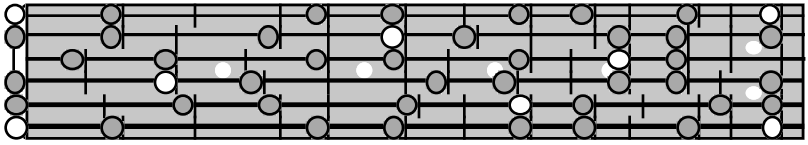
Harmonic Major 1

1	3	5	6	8	9	12	13
0	204	385	498	702	815	1087	1200
1/1	9/8	5/4	4/3	3/2	8/5	15/8	2/1
E	F#	G#	A	B	C	D#	E



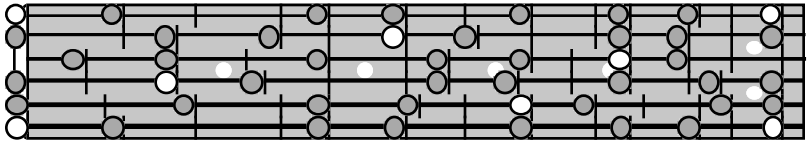
Numenor 1

1	2	5	6	8	9	11	13
0	113	385	498	702	815	1019	1200
1/1	16/15	5/4	4/3	3/2	8/5	9/5	2/1
E	F	G#	A	B	C	D	E



Lorien 1

1	2	5	6	8	10	11	13
0	113	385	498	702	883	1019	1200
1/1	16/15	5/4	4/3	3/2	5/3	9/5	2/1
E	F	G#	A	B	C#	D	E



Harmonic Minor 1

1	3	4	6	8	9	12	13
0	204	317	498	702	815	1087	1200
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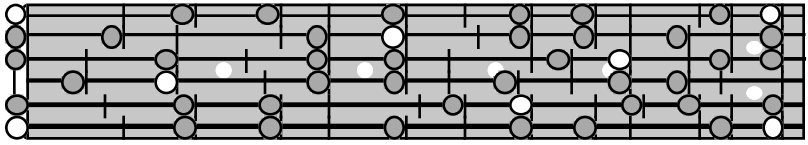
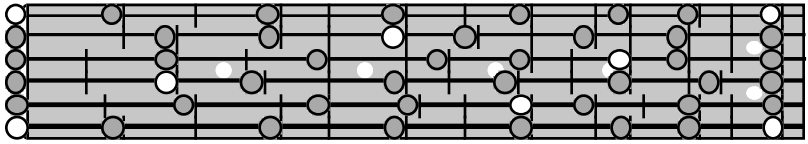
E	F#	G	A	B	C	D#	E



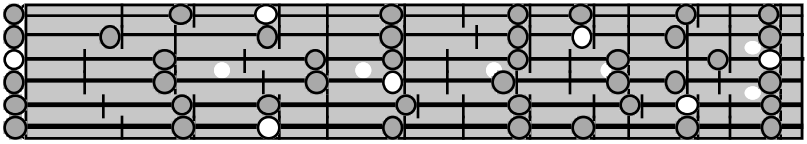
Rivendell 1

1	2	4	6	8	10	11	13
0	113	317	498	702	883	1019	1200
1/1	16/15	6/5	4/3	3/2	5/3	9/5	2/1
E	F	G	A	B	C#	D	E



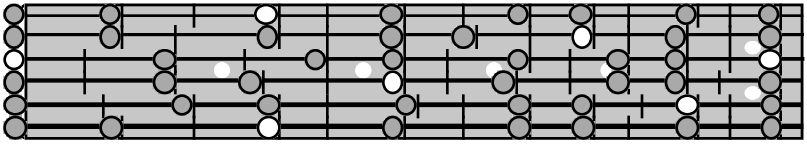
Major 4

4	6	8	9	11	13	15	16
0	181	385	498	702	883	1087	1200
1/1	10/9	5/4	4/3	3/2	5/3	15/8	2/1
G	A	B	C	D	E	F#	G



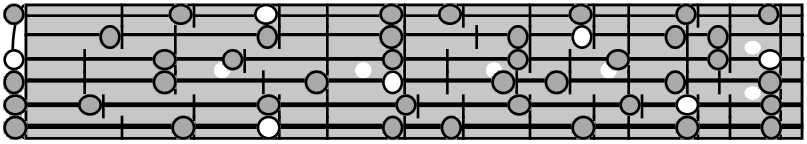
Mixolydian 4

4	6	8	9	11	13	14	16
0	181	385	498	702	883	996	1200
1/1	10/9	5/4	4/3	3/2	5/3	16/9	2/1
G	A	B	C	D	E	F	G



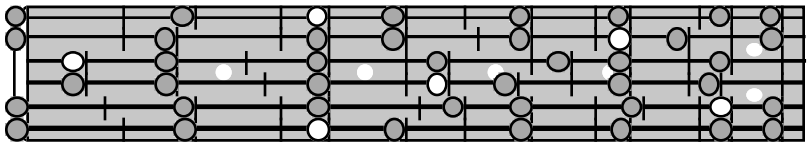
Melodic Minor 4

4	6	7	9	11	13	15	16
0	181	272	498	702	883	1087	1200
1/1	10/9	7/6	4/3	3/2	5/3	15/8	2/1
G	A	A#	C	D	E	F#	G



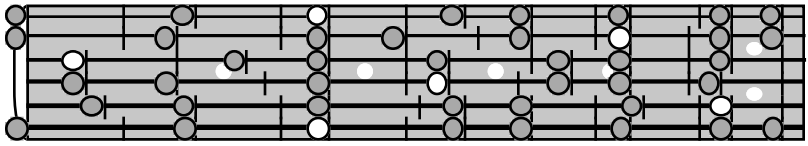
Phrygian 5

5	6	8	10	12	13	15	17
0	113	317	498	702	815	1019	1200
1/1	16/15	6/5	4/3	3/2	8/5	9/5	2/1
G#	A	B	C#	D#	E	F#	G#



Natural Minor 5

5	7	8	10	12	13	15	17
0	204	317	498	702	815	1019	1200
1/1	9/8	6/5	4/3	3/2	8/5	9/5	2/1
G#	A#	B	C#	D#	E	F#	G#



Rivendell 5

5	6	8	10	12	14	15	17
0	113	317	498	702	928	1019	1200
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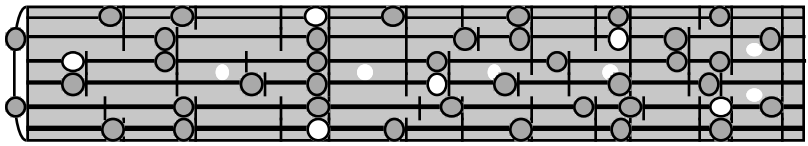
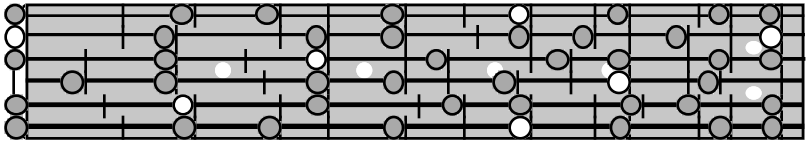
G#	A	B	C#	D#	F	F#	G#



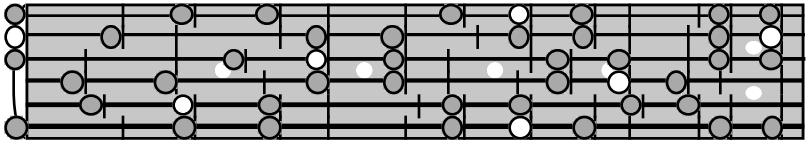
Melodic Major 8

8	10	12	13	15	16	18	20
0	181	385	498	702	815	996	1200
1/1	10/9	5/4	4/3	3/2	8/5	16/9	2/1
B	C#	D#	E	F#	G	A	B



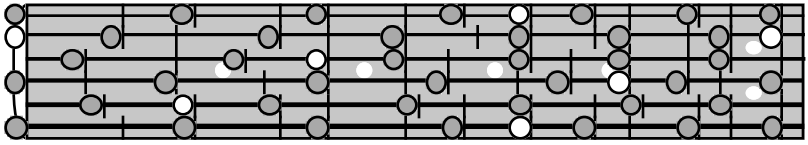
Arabian 8

8	9	12	13	15	16	19	20
0	113	385	498	702	815	1087	1200
1/1	16/15	5/4	4/3	3/2	8/5	15/8	2/1
B	C	D#	E	F#	G	A#	B



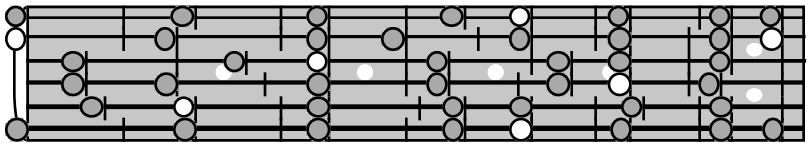
Neapolitan Major 8

8	9	11	13	15	17	19	20
0	113	317	498	702	883	1087	1200
1/1	16/15	6/5	4/3	3/2	5/3	15/8	2/1
B	C	D	E	F#	G#	A#	B



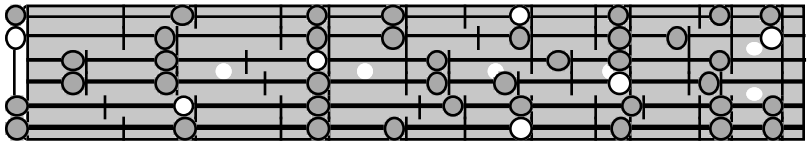
Major 8

8	10	12	13	15	17	19	20
0	181	385	498	702	883	1087	1200
1/1	10/9	5/4	4/3	3/2	5/3	15/8	2/1
B	C#	D#	E	F#	G#	A#	B



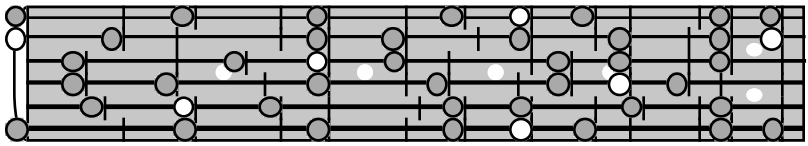
Mixolydian 8

8	10	12	13	15	17	18	20
0	181	385	498	702	883	996	1200
1/1	10/9	5/4	4/3	3/2	5/3	16/9	2/1
B	C#	D#	E	F#	G#	A	B



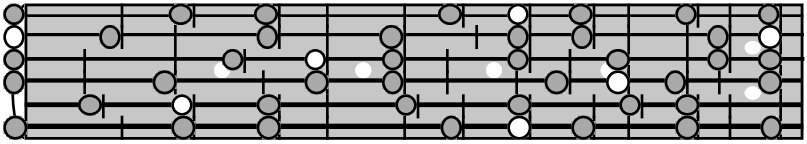
Gondolin 8

8	9	12	13	15	17	19	20
0	113	385	498	702	883	1087	1200
1/1	16/15	5/4	4/3	3/2	5/3	15/8	2/1
B	C	D#	E	F#	G#	A#	B



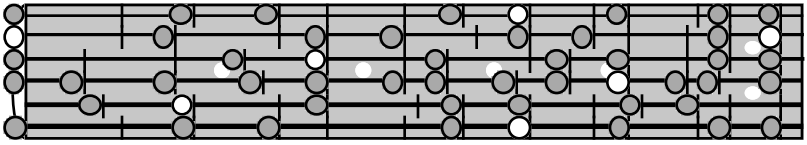
Neapolitan Minor 8

8	9	11	13	15	16	19	20
0	113	317	498	702	815	1087	1200
1/1	16/1	6/5	4/3	3/2	8/	15/8	2/1
B	C	D	E	F#	G	A#	B



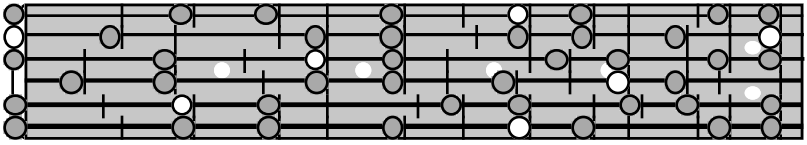
Harmonic Major 8

8	10	12	13	15	16	19	20
0	181	385	498	702	815	1087	1200
1/1	10/9	5/4	4/3	3/2	8/5	15/8	2/1
B	C#	D#	E	F#	G	A#	B



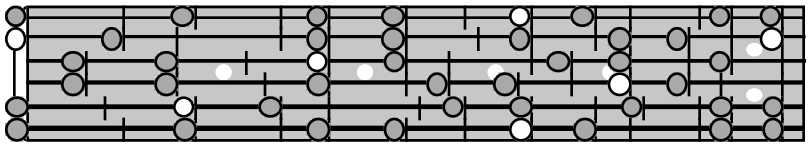
Numenor 8

8	9	12	13	15	16	18	20
0	113	385	498	702	815	996	1200
1/1	16/15	5/4	4/3	3/2	8/5	16/9	2/1
B	C	D#	E	F#	G	A	B



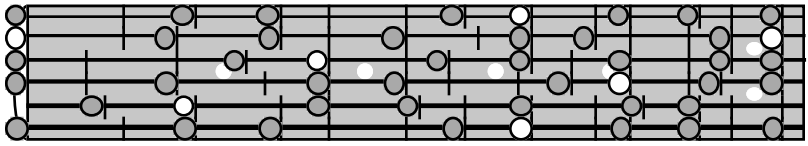
Lorien 8

8	9	12	13	15	17	18	20
0	113	385	498	702	883	996	1200
1/1	16/15	5/4	4/3	3/2	5/3	16/9	2/1
B	C	D#	E	F#	G#	A	B



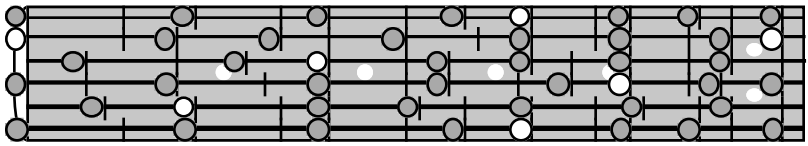
Harmonic Minor 8

8	10	11	13	15	16	19	20
0	181	317	498	702	815	1087	1200
1/1	10/9	6/5	4/3	3/2	8/5	15/8	2/1
B	C#	D	E	F#	G	A#	B



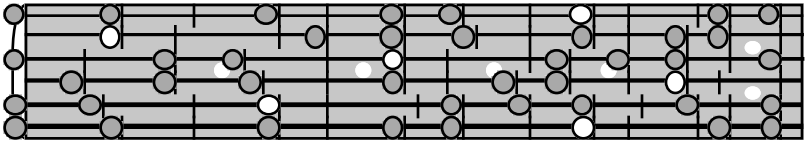
Melodic Minor 8

8	10	11	13	15	17	19	20
0	181	317	498	702	883	1087	1200
1/1	10/9	6/5	4/3	3/2	5/3	15/8	2/1
B	C#	D	E	F#	G#	A#	B



The Crow Scale on 9

9	12	13	14	16	18	19	21
0	272	385	498	702	883	974	1200
1/1	7/6	5/4	4/3	3/2	5/3	7/4	2/1
C	D#	E	F	G	A	A#	C



Chapter Seven
For the Record

I propose a naming system for Eagle 53 instruments. In 12 Tone Equal Temperament the A notes have set frequencies or pitches. So standard A notes have frequencies of 55Hz, 110Hz, 220Hz, 440Hz, 880Hz or any notes that are octaves lower or higher than these. Similarly the E notes have fixed frequencies of 41.2Hz, 82.4Hz, 164.8Hz, 329.6Hz and so on.

With my Eagle 53 tuning the notes are named similarly to 12TET but they do not correspond to fixed frequencies, they are variable. The notes of Eagle 53 over a one octave range are very close to the following just notes...

1/1, 16/15, 9/8, 6/5, 5/4, 4/3, 7/5, 3/2, 8/5, 5/3, 9/5, 15/8, 2/1.

The first note, 1/1, could be set to any desired frequency (say it's 100Hz for this example). The second note will be (approximately) 100Hz by 16/15. The third note will be (approximately) 100Hz by 9/8 and so on.

I have decided to name 1/1, "E". 16/15 is "F". 9/8 is "F#" (or Gb). 6/5 is "G", and so on, similar to the 12TET system. But these names do not correspond to fixed frequencies or pitches, they can be assigned any pitches you want. On my Eagle guitar the bottom E string is tuned to the standard 12TET 'E' (82.4Hz if I remember correctly). So my "Eagle E" is tuned to "Equal E" if you see what I mean. I could tune all the strings up a standard 100 cents semitone and then my "Eagle E" would be tuned to "Equal F". I could tune my Eagle E down a semitone and then my "Eagle E" would be tuned to "Equal D#".

In other words with my Eagle E, F, F#, G, G#, A etc. I could choose any note from standard 12TET and that will be how my Eagle E is tuned and all the other Eagle notes will be tuned relative to this chosen pitch. Why do it this way?

Imagine playing a composition on a keyboard tuned to Eagle 53 and the E key (1/1) is tuned to "Equal E". If you want to play the same tune in, say, Equal G and you retuned the keyboard so that "Eagle E" is now tuned to "Equal G" and is located on the physical white G key you will have to learn a lot of new chord and

scale shapes, many of which didn't exist in the initial tuning. This is because Eagle 53 is not an equal tuning, the distances between adjacent notes varies quite a bit.

Put simply keeping the Eagle 1/1 on just one key (the 'E' key) vastly reduces the number of chord and scale shapes you would need to memorize. If "Eagle E" is implemented on any other physical key (other than a white E key) on a keyboard (e.g. F#) a whole new set of chord and scale shapes need to be learned which complicates matters a lot. It's much simpler to always have "Eagle E" on the physical E key. If you want to play the same piece in another key, choose any 12TET pitch you want for "Eagle E" and all the other notes must be tuned up or down according to Eagle 53 and 1/1 will *always* be on the physical E white key.

To implement this idea I propose a switch on electronic keyboards whereby every note on the instrument can be simultaneously tuned up or down by 1 or 2 or 3 or 4 or 5 or 6 standard 100 cents semitones. The default tuning could be Eagle 53 where "Eagle E" is tuned to "Equal E" on the physical E white key and all the other notes are tuned according to the Eagle 53 tuning.

Electric or amplified guitars could use a pedal that shifts the pitches of the notes played up or down by 1 or 2 or 3 or 4 or 5 or 6 standard semitones but this may not be practical if the player can hear both the physical guitar and the retuned notes coming out of a speaker at the same time. Headphones might work here.

If I had to choose an nEDO (n Equal Divisions of the Octave, 12EDO is the same as 12TET) where *all* the notes are implemented, or fretted, on a guitar it would be 19EDO. 2:3:4:5:6:8 major chords are available (obviously on every note) within 7.3 cents of just and every melodic interval, over a one octave range (except the 63 cents single step interval) is good for me. And 1/1, 4/3, 3/2 and 2/1 are all there within 7.3 cents accuracy.

Afterword

I am not 100% sure that my method for calculating the overall strengths of chords with three or more notes is correct. If it turns out that the method *is* inaccurate I still stand over the 940 lush chords illustrated in this book that have a strength value equal to or greater then 0.75. If you are happy to use minor chords then every lush chord listed here is definitely stronger than any minor chord and should therefore be acceptable.

Watch out for the sequel to this book which should be published within six weeks of the time of writing: The Eagle 53 Guitarist Jazz Chords.

I also intend to write a short book that elaborates on my 'melodic base' idea. I will choose a set of notes for my melodic base and then list a lot of chords where every note belongs to the melodic base so every possible progression of these chords should be good.

After all that is finished I hope to write a book about 19EDO (19 Equal Divisions of the Octave). 19EDO is my favorite EDO where every note has a corresponding fret on a guitar. Eagle 53 is a 12 note *subset* of 53EDO.

www.johnsmusic7.com

www.johnsmusic7.com/eagle45.html

www.facebook.com/groups/eagletuning

John O'Sullivan

11th January, 2021

Notes