

Scales

Bank 1

Position	Scale Name	Description	Ian Ring code	# of steps	# of modes
1	Major	Major scale	2741	7	7
2	Chroma	Equal tempered 12 tone chromatic scale	4095	12	0
3	Penta	Major Pentatonic scale	661	5	5
4	Blues	Hexatonic Blues scale	1257	6	6
5	Whole	Whole Tone scale (Messiaen Mode 1)	1365	6	0
6	Octatonic	Diminished scale (Messiaen Mode 2 Inverse)	2925	8	2
7	Mel Minor	Melodic Minor scale (ascending)	2733	7	7
8	Hm Major	Harmonic Major scale	2485	7	7
9	Hm Minor	Harmonic Minor scale	2477	7	7
10	Dbl Harm	Double Harmonic scale	2483	7	7
11	Hn Major	Hungarian Major Scale	1753	7	7
12	Np Minor	Neapolitan Minor scale	2475	7	7
13	Np Major	Neapolitan Major scale	2731	7	7
14	Enigma	Enigmatic scale	3411	7	7
15	Ch Mixo	Chromatic Mixolydian scale	1255	7	7
16	ChMx Inv	Inverted Chromatic Mixolydian scale	3301	7	7
17	Anti-Blu	Antiscale of Blues scale	2839	7	7
18	DomPenta	Dominant Pentatonic scale	1173	5	5
19	Messiaen 5	Messiaen 5th Mode	2275	6	3
20	Maj Bop	Major scale with added b6 passing tone	2997	8	8
21	Ch Bop	Chromatic Bebop scale	3767	9	9
22	Pent+LT	Minor Pentatonic with leading tones	3837	10	10
23	Maj 7th	Major Seventh chord	2193	4	4
24	Seq 2244	Interval sequence of 2 2 4 4	277	4	4
25	Seq 2424	Interval sequence of 2 4 2 4	325	4	2
26	Dim 7th	Diminished Seventh chord	585	4	0

27	IoPenta	Ionian Pentatonic scale	2225	5	5
28	DorPenta	Dorian Pentatonic scale	653	5	5
29	LydPenta	Lydian Pentatonic scale	2257	5	5
30	MixPenta	Mixolydian Pentatonic scale	1201	5	5
31	Anti-Bop	Antiscale of Major Bop scale	1099	5	5
32	Raga	Raga scale: notes of Major 7-9 chord	2197	5	
33	Hex	Hexatonic scale	693	6	6
34	Anti-Min	Antiscale of Melodic Minor scale	1363	6	6
35	Anti-DbH	Antiscale of Double Harmonic scale	1613	6	6
36	Anti-NpN	Antiscale of Neapolitan Minor scale	1621	6	6
37	Anti-HnM	Antiscale of Hungarian Major scale	2343	6	6
38	Poly A	I-II polychord contained in the scale	725	6	6
39	Poly B	vii-I polychord contained in the scale	2261	6	6
40	Poly C	i-ii polychord contained in the scale	685	6	6
41	Poly D	i ° - bii° polychord contained in the scale	219	6	3
42	Poly E	Minor and diminished polychord contained in the scale	1677	6	6
43	Augmented	Augmented Hexatonic scale	2457	6	2
44	Tritone	I-#IV polychord contained in the scale	1235	6	3
45	10 equal	10 note equal-tempered scale		10	0
46	19 equal	19 note equal-tempered scale		16	0
47	20 equal	20 note equal-tempered scale		20	0
48	QuartrTone	Quarter Tone scale (24 note equal-tempered scale)		24	0
49	31 Equal	31 note equal-tempered scale		31	0
50	48 Equal	48 note equal-tempered scale		48	0

Bank 2

Position	Name	Description	Ian Ring code	# of steps	# of modes
1	Messiaen 6	Messiaen 6th Mode	3445	8	4
2	Messiaen 4	Messiaen 4th Mode	2535	8	4
3	Dom Bop	Mixolydian with added nat 7 leading tone	3765	8	8
4	Min Bop	Melodic Minor with added passing tone of b6	2989	8	8
5	LyDomBop	Mixolydian with added passing tone of #4	1781	8	8
6	Mixo Bop	Mixolydian with added b6 passing tone	1973	8	8
7	Enig Bop	Enigmatic scale with added nat 6 passing tone	3923	8	8
8	L WT Bop	Leading WT scale with added #2 passing tone	3421	8	8
9	H-DimBop	Half Diminished scale with added #4 passing tone	2539	8	8
10	Ch Dor	Mixed Chromatic Dorian scale	1967	9	9
11	BlueNona	Blues Nonatonic scale	3773	9	9
12	9 Tone	Nine Tone scale	3037	9	9
13	Messiaen 3	Messiaen 3rd Mode	3549	9	3
14	Ch Nona	Chromatic Nonatonic scale	511	9	9
15	Messiaen 7	Messiaen 7th Mode	3055	10	5
16	Ch Deca	Chromatic Decatonic scale	1023	10	10
17	11 Note	Chromatic Undecatonic scale	2047	11	11
18	IoLo Xn	Ionic extended with Locrian tetra chord to 11-step per 1.5 octave		11	8
19	Maj Xn	Major scale up 1 half step every cycle		8	8
20	DbH Xn	Double Harmonic scale shift up one half step each pattern repetition		8	8
21	Npj Xn	Neapolitan Major with whole step shift: 1 b2 b3 4 5 6 7 9		8	8
22	Mix Xn	Mixolydian scale up 1 whole step every cycle		8	8
23	Oct Tr	Octatonic truncated to seven steps		7	2

24	Mess4 Tr	Truncation of Messiaen 4th Mode	7	7
25	b7#4 Tr	1 2 3 #4 5 b7 pattern repeats on step 5	5	5
26	Blues Tr	Hex Blues truncated by 1 step pattern repeats on step 5	5	5
27	1312 Xr	2nd tetrachord of harmonic major 1 3 1 2	4	4
28	2112 Xr	Tetra chord 2112	4	4
29	2212 Xr	Tetra chord 2212	4	4
30	2311 Xr	Inverted Chromatic Mixolydian scale extract 2 3 1 1	4	4
31	Just b7 Kz	Just with natural b7th, is Sauveur Just with 7/4 (Kurzweil K2000)	12	0
32	Werck1	Werckmeister I (just intonation)	20	0
33	PythDia	7 note Pythagorean scale	7	0
34	Mavsynch7	Mavila[7] in meta (brat=-1) tuning, fifth satisfies $f^4 + f^3 - 8 = 0$	7	0
35	Centaur	Kraig Grady's 7-limit Centaur scale (1987), Xenharmonikon 16	12	0
36	Porcupine	Porcupine temperament, $g=162.996$, 7-limit	37	0
37	Arabic Kz	Empirical Arabic (Kurzweil K2000)	12	0
38	Pelog Kz	Empirical Bali/Java Melodic Pelog (Kurzweil K2000)	12	0
39	Slendro Kz	Empirical Bali/Java Slendro, Siam 7 (Kurzweil K2000)	12	0
40	Tibetan Kz	Empirical Tibetan Ceremonial (Kurzweil K2000)	12	0
41	Overtone	Simulates beginning of Overtone Scale	31	0
42	ShiftDn	Diatonic-sounding scale which deletes half step each two octaves	7	0
43	ShiftUp	Diatonic-sounding scale which adds half step each two octaves	7	0
44	BohPier 13	13-tone equal division of 3/1. Bohlen-Pierce equal approximation	13	0
45	BohPier 39	39-tone equal division of 3/1. Bohlen-Pierce equal approximation	39	0
46	Bohlen L	Bohlen's lambda scale, just version	9	0
47	Bohlen G	Bohlen's gamma scale, a mode of the Bohlen-Pierce scale	9	0
48	Carlos A	Wendy Carlos' Alpha scale with perfect fifth divided in nine	18	0

49	Carlos B	Wendy Carlos' Beta scale with perfect fifth divided by eleven	22	0
50	Carlos G	Wendy Carlos' Gamma scale with third divided by eleven or fifth by twenty	35	0

(For an explanation of the “Ian Ring” number, please visit [Ian Ring's very comprehensive scale website.](#))

Note: When a xenharmonic (microtonal) scale is selected, Misha sends a pitch bend command before every note. Therefore, when using such a scale and triggering a MIDI device, typically one should set the receiving device's pitch bend range to the standard of 2 semitones. Other numbers may also produce interesting results, but '2' is the one that Misha is expecting in order to be accurate.

Modes

Bank 1

Position	Scale Name	Mode 1	Mode 2	Mode 3	Mode 4	Mode 5	Mode 6	Mode 7	Mode 8	Mode 9	Mode 10
1	Major	Ionian	Dorian	Phrygian	Lydian	Mixolydian	Aeolian	Locrian			
3	Penta	Maj Penta	Sus b7	Blues Min	Sus 4	Min Penta					
4	Blues	Blues Maj	Blues Min	Blues 3	Blues 4	Blues 5	Blues 6				
6	Octatonic	Octa W-H	Octa H-W								
7	Mel Minor	Jazz Min	Dorian b2	Lyd Aug	Overtone	Maj Min	Min Loc	Super Loc			
8	Hm Major	Hm Major 1	Dorian b5	Phr b4	Lydian b3	Har m Inv	Lyd Aug#2	Loc bb7			
9	Hm Minor	Hm Minor 1	Loc Nat 6	Maj Aug	Lyd Dim	Phr Dom	Aeo Har	Ultraloc			
10	Dbl Harm	Byzantine	Lyd #2 #6	Ultraphry	Dbl Har m	Asian	Ion Aug#2	Loc bb3-7			
11	Hn Major	Hn Major 1	Hn Major 2	Hn Major 3	Hn Major 4	Hn Major 5	Hn Major 6	Hn Major 7			
12	Np Minor	Np Minor 1	Np Minor 2	Np Minor 3	Romani Mn	Np Minor 5	Np Minor 6	Np Minor 7			
13	Np Major	Phr Maj	L WT	Np Major 3	Lyd Min	Maj Loc	Np Major 6	L WT Inv			
14	Enigma	Enigma 1	Enigma 2	Enigma 3	Enigma 4	Enigma 5	Enigma 6	Enigma 7			
15	Ch Mixo	Ch Mixo	Ch Lyd	Ch Phr	Ch Dor	Ch Hy Lyd	Ch Hy Phr	Ch Hy Dor			
16	ChMx Inv	ChMx Inv 1	ChMx Inv 2	ChMx Inv 3	ChMx Inv 4	ChMx Inv 5	ChMx Inv 6	ChMx Inv 7			
17	Anti-Blu	Anti-Blu 1	Anti-Blu 2	Anti-Blu 3	Anti-Blu 4	Anti-Blu 5	Anti-Blu 6	Anti-Blu 7			
18	DomPenta	DomPenta 1	DomPenta 2	DomPenta 3	DomPenta 4	DomPenta 5					

19	Messiaen 5	Messiaen 5 1	Messiaen 5 2	Messiaen 5 3	Messiaen 5 4	Messiaen 5 5				
20	Maj Bop	Major Bop	Blues II	Espana Phr	Maj Bop 4	Maj Bop 5	Maj Bop 6	Maj Bop 7	Maj Bop 8	
21	Ch Bop	Ch Bop 1	Ch Bop 2	Ch Bop 3	Ch Bop 4	Ch Bop 5	Ch Bop 6	Ch Bop 7	Ch Bop 8	Ch Bop 9
22	Pent+LT	Pent+LT 1	Pent+LT 2	Pent+LT 3	Pent+LT 4	Pent+LT 5	Pent+LT 6	MajMin Mix	Pent+LT 8	Pent+LT 9 Pent+LT 10
23	Maj 7th	Maj 7th 1	Maj 7th 2	Maj 7th 3	Maj 7th 4					
24	Seq 2244	Seq 2244	Seq 2442	Seq 4422	Seq 4224					
25	Seq 2424	Seq 2424	Seq 4242							
27	IoPenta	IoPenta 1	IoPenta 2	IoPenta 3	IoPenta 4	IoPenta 5				
28	DorPenta	DorPenta 1	DorPenta 2	DorPenta 3	DorPenta 4	DorPenta 5				
29	LydPenta	LydPenta 1	LydPenta 2	LydPenta 3	LydPenta 4	LydPenta 5				
30	MixPenta	MixPenta 1	MixPenta 2	MixPenta 3	MixPenta 4	MixPenta 5				
31	Anti-Bop	Anti-Bop 1	Anti-Bop 2	Anti-Bop 3	Anti-Bop 4	Anti-Bop 5				
32	Raga	Raga 1	Raga 2	Raga 3	Raga 4	Raga 5				
33	Hex	Maj Hex	Min Hex	Hex 3	Hex 4	Dom Hex	Hex 6			
34	Anti-Min	Anti-Min 1	Anti-Min 2	Anti-Min 3	Anti-Min 4	Anti-Min 5	Anti-Min 6			
35	Anti-DbH	Anti-DbH 1	Anti-DbH 2	Anti-DbH 3	Anti-DbH 4	Anti-DbH 5	Anti-DbH 6			
36	Anti-NpN	Anti-NpN 1	Anti-NpN 2	Anti-NpN 3	Anti-NpN 4	Anti-NpN 5	Anti-NpN 6			
37	Anti-HnM	Anti-HnM 1	Anti-HnM 2	Anti-HnM 3	Anti-HnM 4	Anti-HnM 5	Anti-HnM 6			
38	Poly A	Dom 7 Hex	Poly A 2	Maj 7 Hex	Min 7 Hex	Poly A 5	#4 Hex			
39	Poly B	Poly B 1	Poly B 2	Poly B 3	Poly B 4	Poly B 5	Poly B 6			
40	Poly C	Poly C 1	Poly C 2	Poly C 3	Poly C 4	Poly C 5	Poly C 6			
41	Poly D	Istrian	Poly D 2	Poly D 3						
42	Poly E	Poly E 1	Poly E 2	Poly E 3	Poly E 4	Poly E 5	Poly E 6			
43	Augmented	Augmented	Aug Inv							
44	Tritone	Tritone 1	Tritone 2	Tritone 3						

Bank 2

Position	Scale Name	Mode 1	Mode 2	Mode 3	Mode 4	Mode 5	Mode 6	Mode 7	Mode 8	Mode 9	Mode 10	Mode 11
1	Messiaen 6	Messiaen 6	Mess 6 R1	Mess 6 R2	Mess 6 R3							
2	Messiaen 4	Messiaen 4	Mess 4 R1	Mess 4 R2	Mess 4 R3							
3	Dom Bop	Dom Bop	Dom Bop 2	Phry+Lo c	Dom Bop 4	Dor Bop	Dom Bop 6	Dom Bop 7	Prokofiev			
4	Min Bop	Min Bop 1	Min Bop 2	Min Bop 3	Min Bop 4	Min Bop 5	Min Bop 6	Min Bop 7	Min Bop 8			
5	LyDomBop	LyDomBop 1	LyDomBop 2	LyDomBop 3	LyDomBop 4	LyDomBop 5	LyDomBop 6	LyDomBop 7	LyDomBop 8			

Position	Scale Name	Mode 1	Mode 2	Mode 3	Mode 4	Mode 5	Mode 6	Mode 7	Mode 8	Mode 9	Mode 10	Mode 11
6	Mixo Bop	Mixo Bop 1	Mixo Bop 2	Mixo Bop 3	Mixo Bop 4	Mixo Bop 5	Mixo Bop 6	Mixo Bop 7	Mixo Bop 8			
7	Enig Bop	Enig Bop 1	Enig Bop 2	Enig Bop 3	Enig Bop 4	Enig Bop 5	Enig Bop 6	Enig Bop 7	Enig Bop 8			
8	L WT Bop	L WT Bop 1	L WT Bop 2	L WT Bop 3	L WT Bop 4	L WT Bop 5	L WT Bop 6	L WT Bop 7	L WT Bop 8			
9	H-DimBop	H-DimBop 1	H-DimBop 2	H-DimBop 3	H-DimBop 4	H-DimBop 5	H-DimBop 6	H-DimBop 7	H-DimBop 8			
10	Ch Dor	Ch Dor 1	Ch Dor 2	Ch Dor 3	Ch Dor 4	Ch Dor 5	Ch Dor 6	Ch Dor 7	Ch Dor 8	Ch Dor 9		
11	BlueNona	BlueNona 1	BlueNona 2	BlueNona 3	BlueNona 4	BlueNona 5	BlueNona 6	BlueNona 7	BlueNona 8	BlueNona 9		
12	9 Tone	9 Tone 1	9 Tone 2	9 Tone 3	9 Tone 4	9 Tone 5	9 Tone 6	9 Tone 7	9 Tone 8	9 Tone 9		
13	Messiaen 3	Messiaen 3	Mess 3 R1	Mess 3 R2								
14	Ch Nona	Ch Nona 1	Ch Nona 2	Ch Nona 3	Ch Nona 4	Ch Nona 5	Ch Nona 6	Ch Nona 7	Ch Nona 8	Ch Nona 9		
15	Messiaen 7	Messiaen 7	Mess 7 R1	Mess 7 R2	Mess 7 R3	Mess 7 R4						
16	Ch Deca	Ch Deca 1	Ch Deca 2	Ch Deca 3	Ch Deca 4	Ch Deca 5	Ch Deca 6	Ch Deca 7	Ch Deca 8	Ch Deca 9	Ch Deca 10	Ch Deca 11
17	11 Note	11 Note 1	11 Note 2	11 Note 3	11 Note 4	11 Note 5	11 Note 6	11 Note 7	11 Note 8	11 Note 9	11 Note 10	11 Note 11
18	IoLo Xn	IoLo Xn 1	IoLo Xn 2	IoLo Xn 3	IoLo Xn 4	IoLo Xn 5	IoLo Xn 6	IoLo Xn 7	IoLo Xn 8	IoLo Xn 9	IoLo Xn 10	IoLo Xn 11
19	Maj Xn	Maj Xn 1	Maj Xn 2	Maj Xn 3	Maj Xn 4	Maj Xn 5	Maj Xn 6	Maj Xn 7	Maj Xn 8			
20	DbH Xn	DbH Xn 1	DbH Xn 2	DbH Xn 3	DbH Xn 4	DbH Xn 5	DbH Xn 6	DbH Xn 7	DbH Xn 8			
21	Npj Xn	Npj Xn 1	Npj Xn 2	Npj Xn 3	Npj Xn 4	Npj Xn 5	Npj Xn 6	Npj Xn 7	Npj Xn 8			
22	Mix Xn	Mix Xn 1	Mix Xn 2	Mix Xn 3	Mix Xn 4	Mix Xn 5	Mix Xn 6	Mix Xn 7	Mix Xn 8			
23	Oct Tr	Oct Tr 1	Oct Tr 2									
24	Mess4 Tr	Mess4 Tr 1	Mess4 Tr 2	Mess4 Tr 3	Mess4 Tr 4	Mess4 Tr 5	Mess4 Tr 6	Mess4 Tr 7				
25	b7#4 Tr	b7#4 Tr 1	b7#4 Tr 2	b7#4 Tr 3	b7#4 Tr 4	b7#4 Tr 5						
26	Blues Tr	Blues Tr 1	Blues Tr 2	Blues Tr 3	Blues Tr 4							
27	1312 Xr	1312 Xr 1	1312 Xr 2	1312 Xr 3	1312 Xr 4							
28	2112 Xr	2112 Xr 1	2112 Xr 2	2112 Xr 3	2112 Xr 4							
29	2212 Xr	2212 Xr 1	2212 Xr 2	2212 Xr 3	2212 Xr 4							
30	2311 Xr	2311 Xr 1	2311 Xr 2	2311 Xr 3	2311 Xr 4							