

# Basque Calendar Cube Mapping

In the mapping process of a calendar cube texture, all stickers are numbered from 0 to 53, following the numbering scheme of a reference 3x3x3 numbered cube. By doing so, each letter, number and blank can be uniquely identified. The result of the mapping process is used as an input to the [CubeSynthesizer3](#) computer program, which will then synthesize all the 2562 algorithms used to animate this perpetual calendar.

Many animated calendar cubes can be found by browsing through pages of the following website:

[http://www.randelshofer.ch/rubik/virtualcubes/virtual\\_rubik\\_en.html](http://www.randelshofer.ch/rubik/virtualcubes/virtual_rubik_en.html)

**Basque Calendar Cube**

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Texture

Saturday, August 15

## Synthesized Algorithm

Saturday, August 15 MU' B2 MU B D' B' D F L' MF2 L F' U' L' B' L B' MF2 U2 B' U' L' B' L

## Reference 3x3x3 Numbered Cube

	18	19	20					
	21	22	23					
	24	25	26					
27	28	29	<u>0</u>	1	2	<u>9</u>	10	11
30	31	32	3	4	5	12	13	14
33	34	35	<u>6</u>	7	<u>8</u>	15	16	17
	36	37	38	45	46	47		
	39	40	41	48	49	50		
	42	43	44	51	52	53		



Numbered Cube Texture

Virtual Numbered Cube

### Basque Calendar Cube – Months

Letters						Months	
Left	Numbering	Middle	Numbering	Right	Numbering	Month	Numbering
U	0	R	1	T	2	January	0
O	27	T	25	S	9	February	1
M	24	A	10	R	26	March	2
A	29	P	23	I	42	April	3
M	24	A	10	I	42	May	4
E	18	K	28	A	11	June	5
U	0	Z	21	T	2	July	6
A	29	B	46	U	45	August	7
I	47	R	1	A	11	September	8
U	0	R	1	R	26	October	9
A	29	Z	21	A	11	November	10
A	29	B	46	E	20	December	11

### Basque Calendar Cube – Days

Left	Numbering	Middle	Numbering	Right	Numbering	Day	Numbering
b3	3	1	4	b5	5	1	1
b3	3	2	31	b5	5	2	2
b3	3	3	13	b5	5	3	3
b3	3	b22	22	4	14	4	4
b3	3	b22	22	5	48	5	5
b3	3	6	49	b5	5	6	6
b3	3	b22	22	7	50	7	7
b3	3	8	40	b5	5	8	8
b3	3	9	49/180°	b5	5	9	9
b5	5	1	4	0	32	10	10
1	30	1	4	b5	5	11	11
1	30	2	31	b5	5	12	12
1	30	3	13	b5	5	13	13
b3	3	1	4	4	14	14	14
b3	3	1	4	5	48	15	15
1	30	6	49	b5	5	16	16
b3	3	1	4	7	50	17	17
1	30	8	40	b5	5	18	18
1	30	9	49/180°	b5	5	19	19
b5	5	2	31	0	32	20	20
2	12	1	4	b3	3	21	21
2	12	2	31	b3	3	22	22
2	12	3	13	b3	3	23	23
b3	3	2	31	4	14	24	24
b3	3	2	31	5	48	25	25
2	12	6	49	b3	3	26	26
b3	3	2	31	7	50	27	27
2	12	8	40	b3	3	28	28
2	12	9	49/180°	b3	3	29	29
b5	5	3	13	0	32	30	30
3	47	1	4	b5	5	31	31

**Note 1:** Blank b5 left is used with number 0 right and blank b3 right with number 2 left

### Basque Calendar Cube – Weekdays

Letters						Weekdays	
Left	Numbering	Middle	Numbering	Right	Numbering	Weekday	Numbering
Igand	51	ea	37	b8	8	Sunday	0
Aste	6	lehena	7	b8	8	Monday	1
Asteart	35	ea	37	b8	8	Tuesday	2
Aste	6	azkena	16	b8	8	Wednesday	3
Ost	36	eguna	34	b8	8	Thursday	4
Ost	36	irala	39	b8	8	Friday	5
Larun	17	bata	41	b8	8	Saturday	6

**Note 2:** Weekday numbering begins with Sunday (for compatibility with JavaScript)

# CubeSynthesizer3 Input Form – Basque Calendar Cube

The screenshot displays the 'CubeSynthesizer3 - 3x3x3 Cubes - Developer's Version 1.0' spreadsheet. The table contains 256 rows of algorithms, each with a unique move sequence. A dialog box titled 'Cube Synthesizer Input Form' is open, allowing users to select a language and an algorithm. The 'Basque' language is selected, and the 'JavaScript' algorithm is chosen. The table columns are: Index, Moves, Weekdays, Days, and Months.

Index	Moves	Weekdays	Days	Months
0	11	Sunday	1	January
1	0	Monday	1	January
2	10	Tuesday	1	January
3	4	Wednesday	1	January
4			1	January
5			1	January
6			1	January
7			1	January
8			1	January
9			1	January
10			1	January
11			1	January
12			2	January
13			2	January
14			2	January
15			2	January
16			2	January
17			2	January
18			2	January
19			2	January
20			2	January
21			2	January
22			2	January
23			2	January
24			2	January
25			2	January
26			2	January
27			2	January
28			2	January
29			2	January
30			2	January
31			2	January
32			2	January
33			2	January
34			2	January
35			2	January
36			2	January
37			2	January
38			2	January
39			2	January
40			2	January
41			2	January
42			2	January
43			2	January
44			2	January
45			2	January
46			2	January
47			2	January
48			2	January
49			2	January
50			2	January
51			2	January
52			2	January
53			2	January
54			2	January
55			2	January
56			2	January
57			2	January
58			2	January
59			2	January
60			2	January
61			2	January
62			2	January
63			2	January
64			2	January
65			2	January
66			2	January
67			2	January
68			2	January
69			2	January
70			2	January
71			2	January
72	16	Monday	4	January
73	25	Tuesday	4	January
74	19	Wednesday	4	January
75	22	Thursday	4	January
76	23	Friday	4	January
77	21	Saturday	4	January
78	23	Sunday	5	January
79	16	Monday	5	January
80	24	Tuesday	5	January
81	19	Wednesday	5	January
82	23	Thursday	5	January
83	24	Friday	5	January
84	21	Saturday	5	January
85	23	Sunday	6	January
86	29	Monday	6	January
87	27	Tuesday	6	January

2562 optimized algorithms – Average number of moves: 23