ZZ-b method: Phasing stage

Michal Hordecki (formatting by IliKo) E-mail: mhordecki@gmail.com

Website: http://www.emsee.110mb.com/Speedcubing

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Introduction

Here I describe my phasing method. I use simple blockbuilding consisting of 2 blocks and 2 slots. I do phasing while doing last slot (and I do last slot at the end of F2L).

Virtually all of F2L cases end similarly. It is usually something like U R U' R' or R U R' or R' in special cases. Therefore, while doing 4th slot, I recognize phasing situation, and then at the end I apply proper moves.

If you allow AUF after phasing, there are 3 possible LL edges permutation cases for you to recognize.

To simplify explanation, assume that the 4th slot is the DFR+FR pair.

To name each case, I use the following approach:

Execute R U' R' on the solved cube. You will end with easy F2L case. When looking at the front of the cube, you can see three LL edges — one placed in UF, another in UR and the last in FR. By these 3 edges you can recognize phasing situation. At first, notice that within three edges there is always a pair of opposite edges, i.e. UF-UB or UR-UL. I'm recognizing the phasing case by looking where these opposite edges are.

I use 2-letter system: for example x-F means that the opposite edges are placed in FR (x) and UF (F), F-R is UF and UR.



Figure 1: Sample phasing case — x-R

Algorithms

Case	Name	Layout	Algorithm
	R U R'	x-F	R U' R' U' (R U' R')
		x-R	(R U2 R' U) (R U2 R')
		F-R	R U R'
	URU'R'	x-F	URU'R'
		x-L	U2 R U2 R'
		L-F	U2 (R U' R' U) (R U2 R')
	R'	x-F	(U R' U) (R U2 R')
		x-L	R'
		F-L	U2 R' U' (R U' R')