

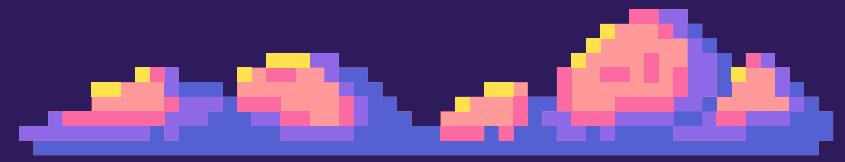


COMMENT OPTIMISER UN SOLVEUR TETRIS ?

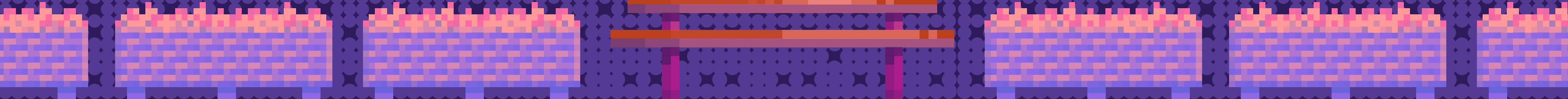
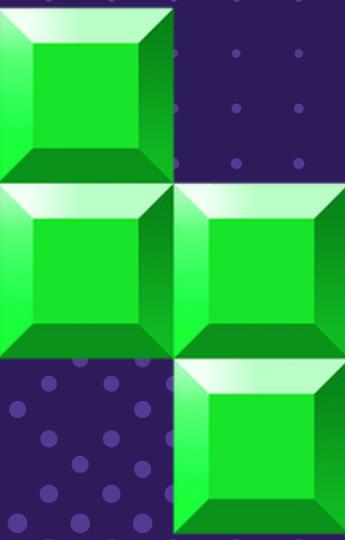
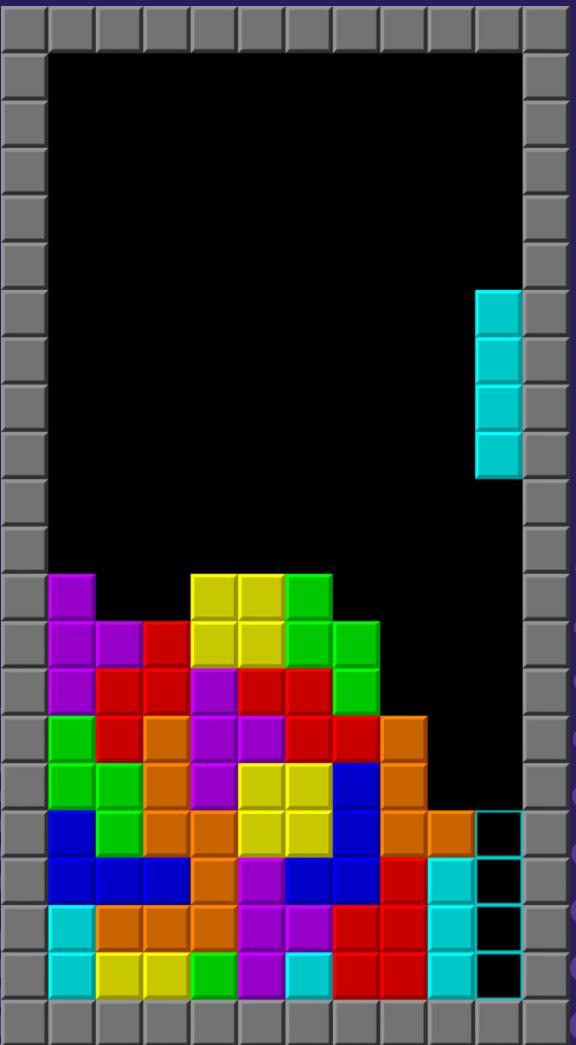
PRÉSENTATION DES ÉLÉMENTS



LA GRILLE



LA PIÈCE



PRÉSENTATION DES ÉLÉMENTS

LA GRILLE

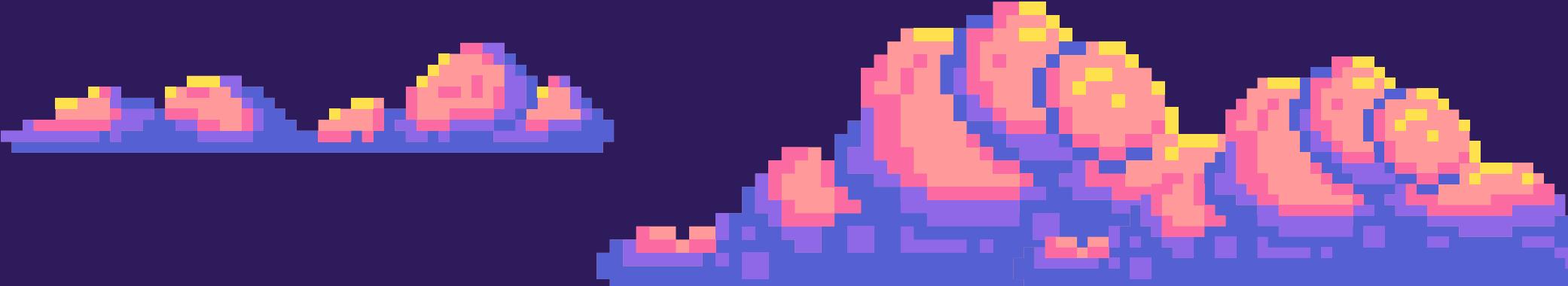
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```

LA PIÈCE

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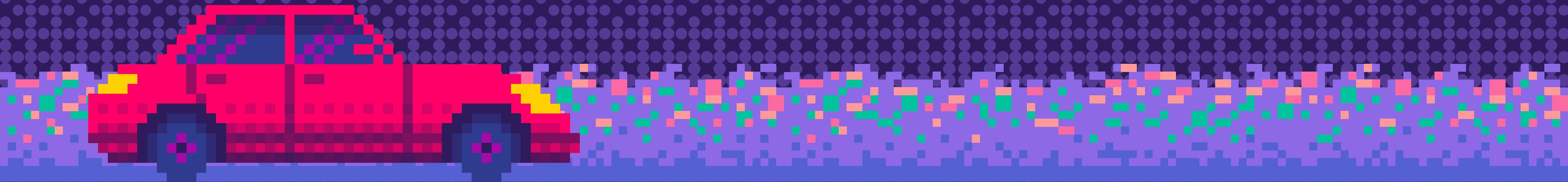
VERSION 2



58321 NS/OP → 40391 NS/OP

RÉCUPÉRATION DES ROTATIONS UTILES

CALCULE DES POINTS EN MOINS DE BOUCLE

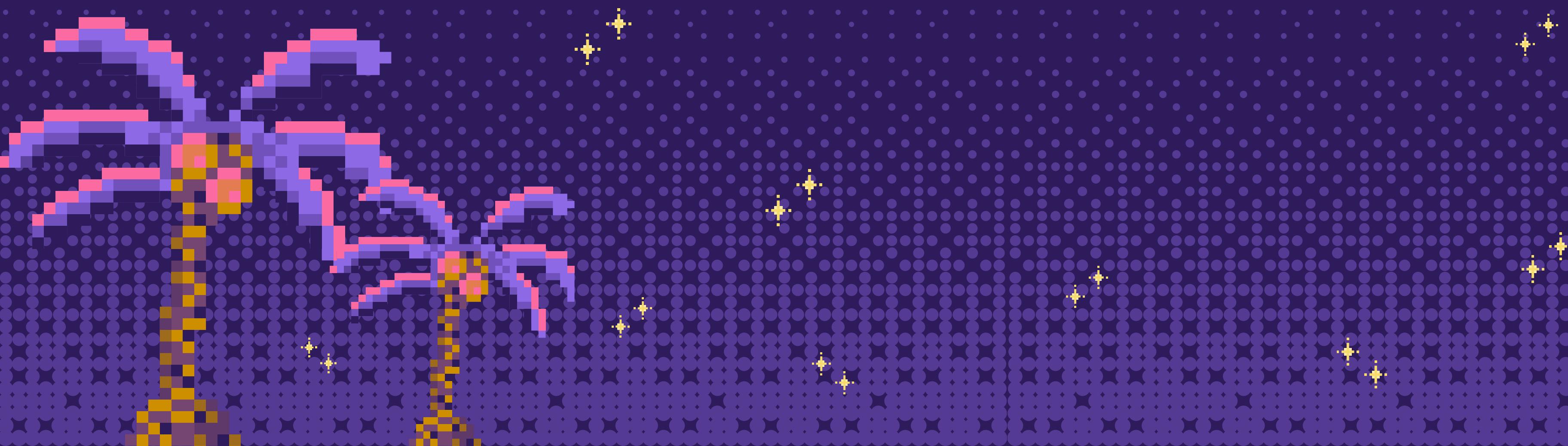


VERSION 3



40391 NS/OP → 36099 NS/OP

MISE EN PLACE DE GOROUTINE POUR LA ROTATION

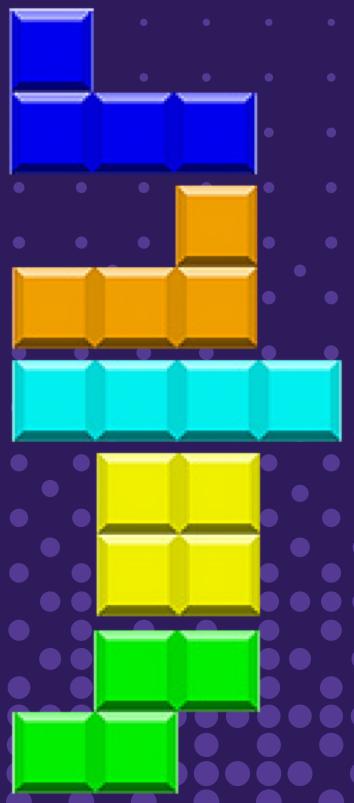


VERSION 4

40391 NS/OP \rightarrow 1171908 NS/OP

MISE EN PLACE DES SÉQUENCES

- PROFONDEUR (N-DEPTH)
 - $\approx 20,7$ PLACEMENT PAR PIECE
- ON ENLEVE LES GOROUTINES DES ROTATIONS



VERSION 5

1171908 NS/OP \rightarrow 1112190 NS/OP

MISE EN PLACE DES GOROUTINES

- SUR LA ROTATION
- SUR LA SEQUENCE

VERSION 5

RÉCUPER LES PLACEMENT

- 1 ROUTINE PAR ROTATION

POUR CHAQUE PLACEMENT

- 1 ROUTINE
- 1 ROUTINE PAR ROTATION DE LA PIECE
- ETC...

VERSION 6

111219@ NS/OP -> 980677 NS/OP

AJOUT DES WAIT GROUPS

- MUTEX

LES PERFORMANCES

VERSION 1 20277 OPEN 2.2 S

VERSION 2 32870 OPEN 2.0 S

VERSION 3 34204 OPEN 2.0 S

VERSION 4 854 OPEN 1.4 S

VERSION 5 1243 OPEN 1.7 S

VERSION 6 1257 OPEN 1.6 S

```
var matrices []tetris.Matrix
for i := 0; i < 5; i++ {
    m := tetris.DefaultMatrix()
    for y := 35; y < 39; y++ {
        for x := 2; x < 4+i%3; x++ {
            m[y][x] = 'X'
        }
    }
    matrices = append(matrices, m)
}

model := AIModel{}
b.ResetTimer()
i := 0

for b.Loop() {
    matrix := matrices[i%len(matrices)]
    tet := tетriminos[i%len(тетriminos)]
    tet.Position = tetris.Coordinate{X: 0, Y: 0}

    model.FindBestPlacement(matrix, tet)
    i++
}
```



PISTES D'OPTIS

- 01 SORTIR L'IA DE LA BOUCLE DU JEU (TICK)
- 02 WORKER À LA PLACE DES GO ROUTINES
- 03 PRUNING, ÉLIMINER LES MAUVAIS CHEMINS
- 04 CACHE LES TETRIMINOS ROTATE
- 05 LIMITER LA DEPTH DYNAMIQUEMENT
- 06 CACHE LES MATRICES



THANKS