

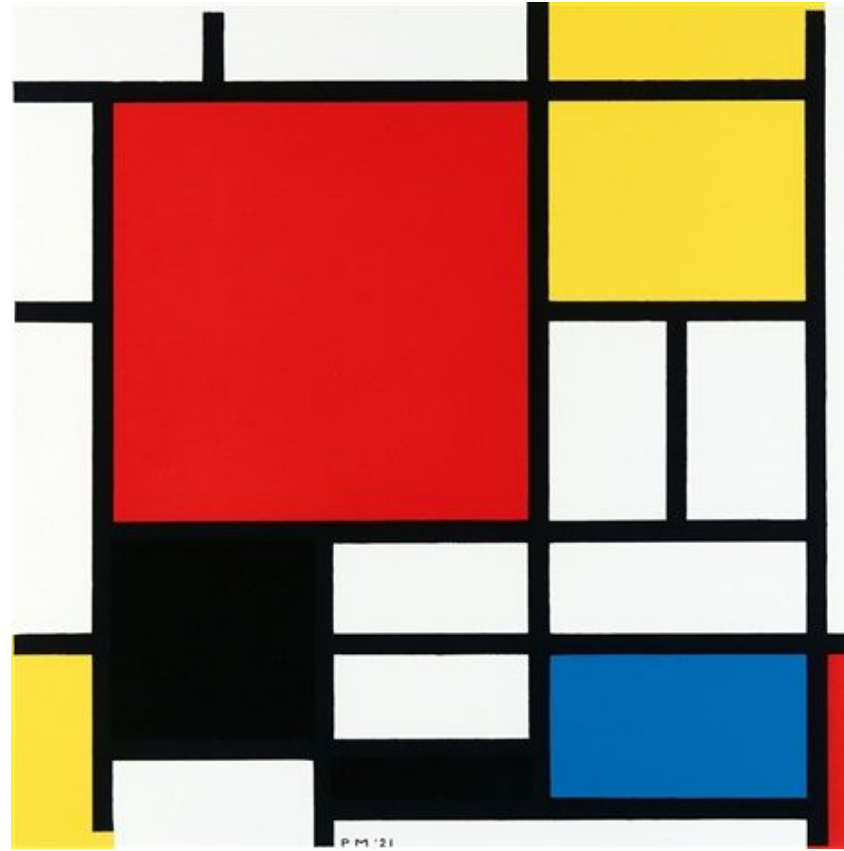
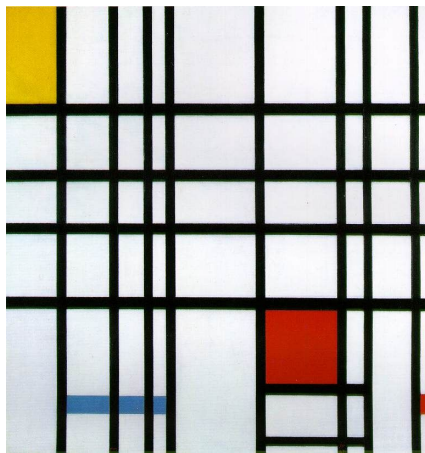
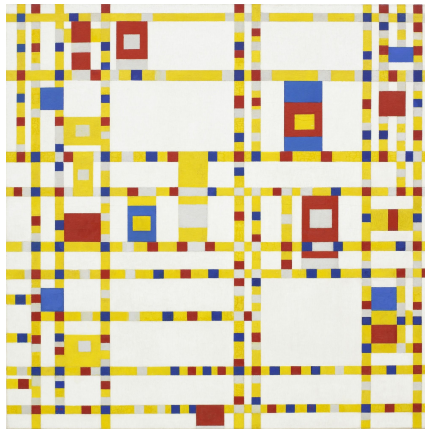
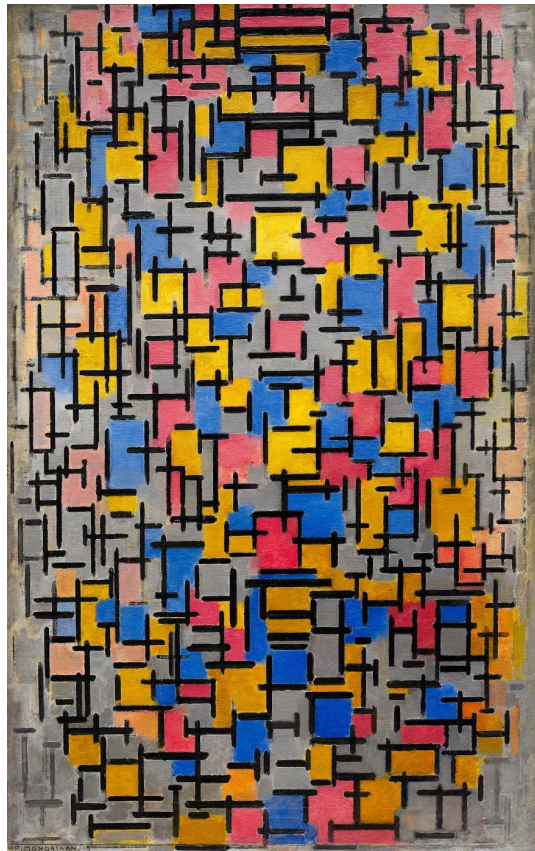


MasterPiets (A Piet IDE)

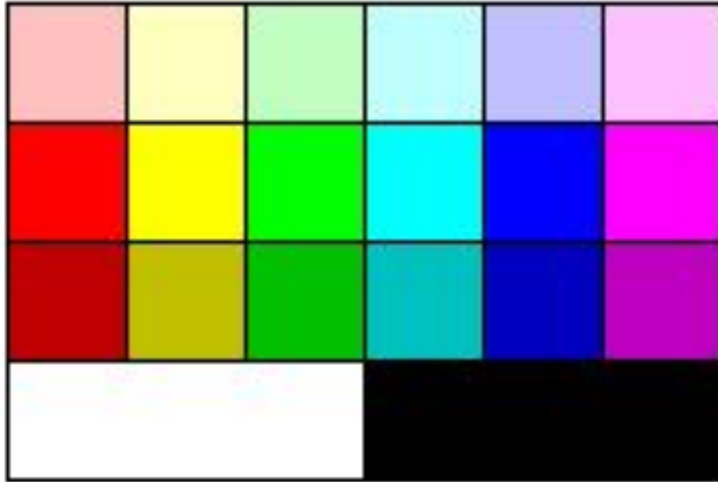
Gabrielle Singh Cadieux

Toronto Hack && Tell: Round 16

March 6th, 2018



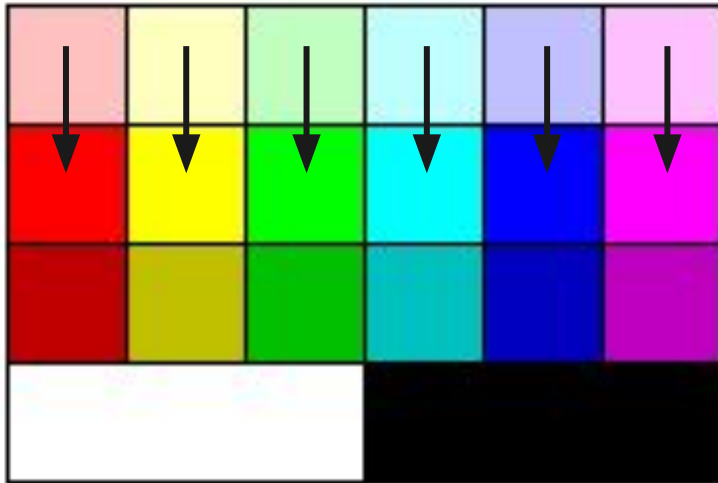
Works by Piet Mondrian



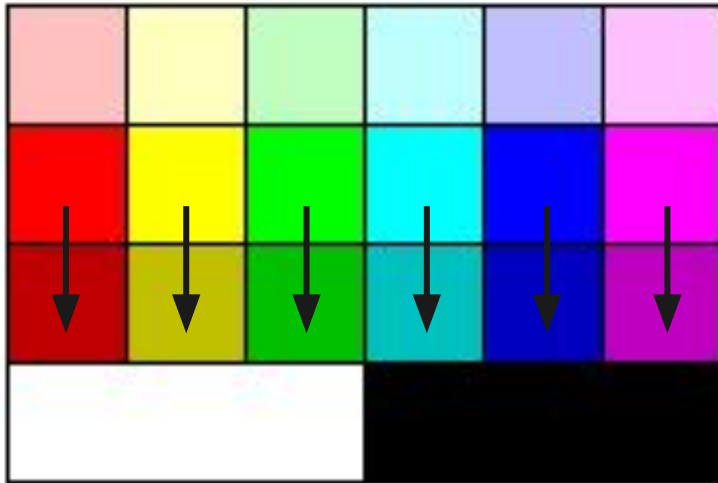
Piet palette

		Lightness change		
		None	1 darker	2 darker
Hue change	None		PUSH	POP
	1 step	ADD	SUB	MUL
	2 steps	DIV	MOD	NOT
	3 steps	>	POINTER	SWITCH
	4 steps	DUP	ROLL	IN(num)
	5 steps	IN(char)	OUT(num)	OUT(char)

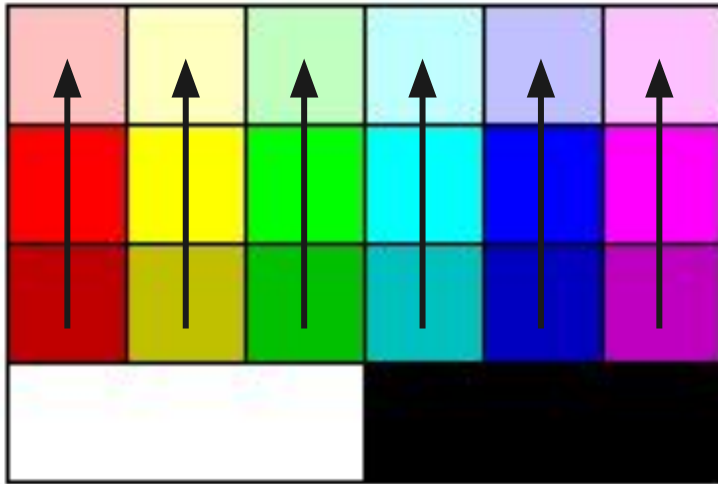
Piet instruction set



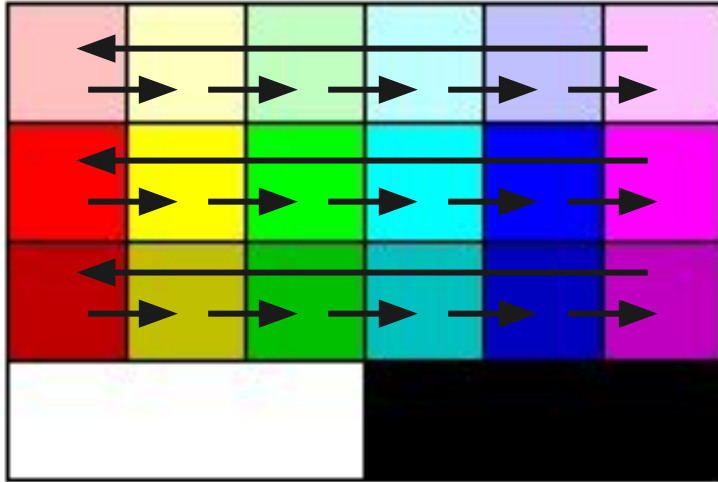
		Lightness change		
		None	1 darker	2 darker
Hue change	None		PUSH	POP
	1 step	ADD	SUB	MUL
	2 steps	DIV	MOD	NOT
	3 steps	>	POINTER	SWITCH
	4 steps	DUP	ROLL	IN(num)
	5 steps	IN(char)	OUT(num)	OUT(char)



		Lightness change		
		None	1 darker	2 darker
Hue change	None		PUSH	POP
	1 step	ADD	SUB	MUL
	2 steps	DIV	MOD	NOT
	3 steps	>	POINTER	SWITCH
	4 steps	DUP	ROLL	IN(num)
	5 steps	IN(char)	OUT(num)	OUT(char)



		Lightness change		
		None	1 darker	2 darker
Hue change	None		PUSH	POP
	1 step	ADD	SUB	MUL
	2 steps	DIV	MOD	NOT
	3 steps	>	POINTER	SWITCH
	4 steps	DUP	ROLL	IN(num)
	5 steps	IN(char)	OUT(num)	OUT(char)

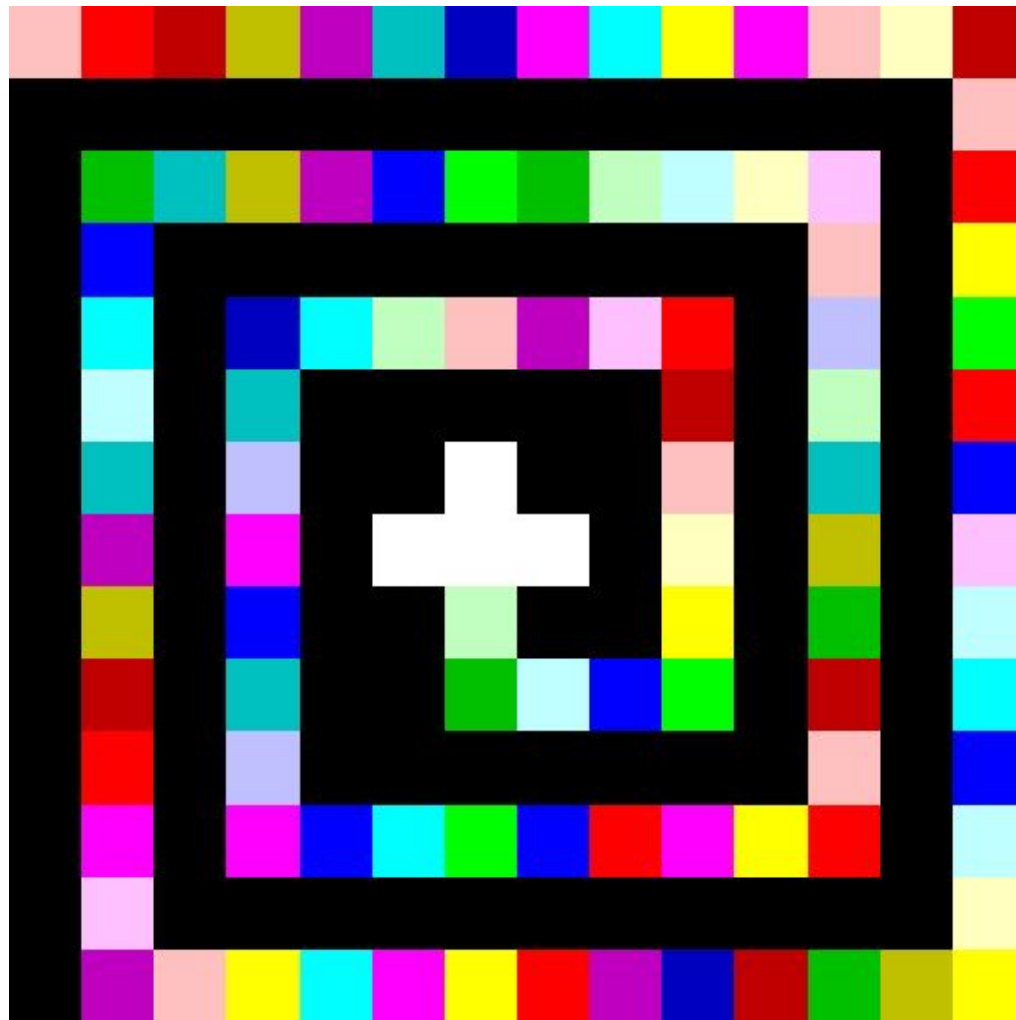


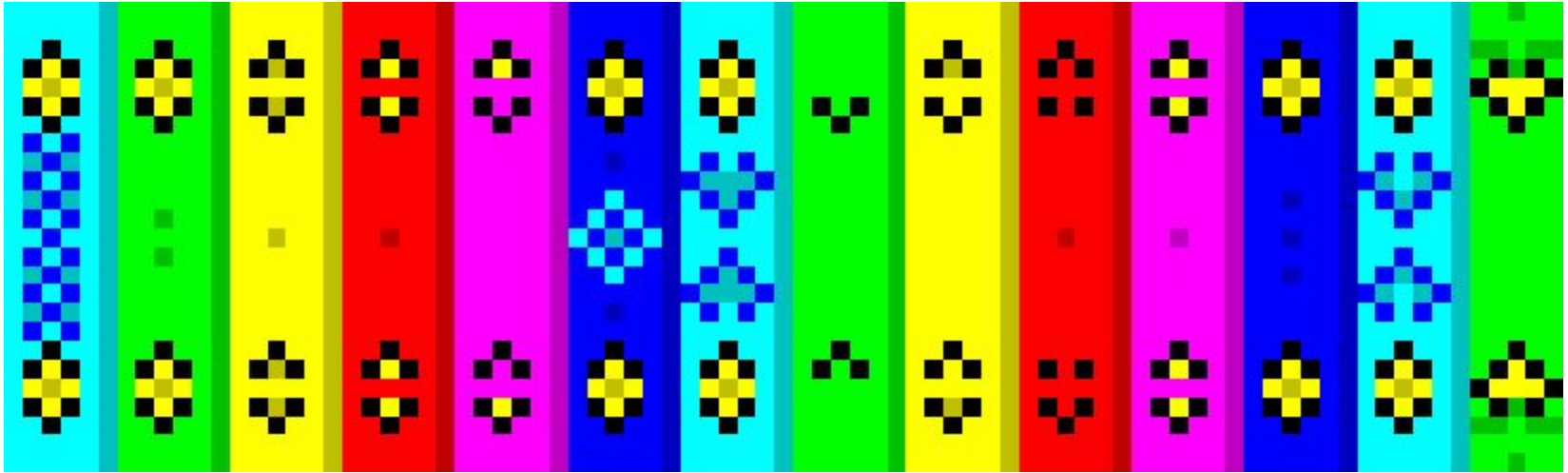
		Lightness change		
		None	1 darker	2 darker
Hue change	None		PUSH	POP
	1 step	ADD	SUB	MUL
	2 steps	DIV	MOD	NOT
	3 steps	>	POINTER	SWITCH
	4 steps	DUP	ROLL	IN(num)
	5 steps	IN(char)	OUT(num)	OUT(char)

Hello World 1



Hello World 2



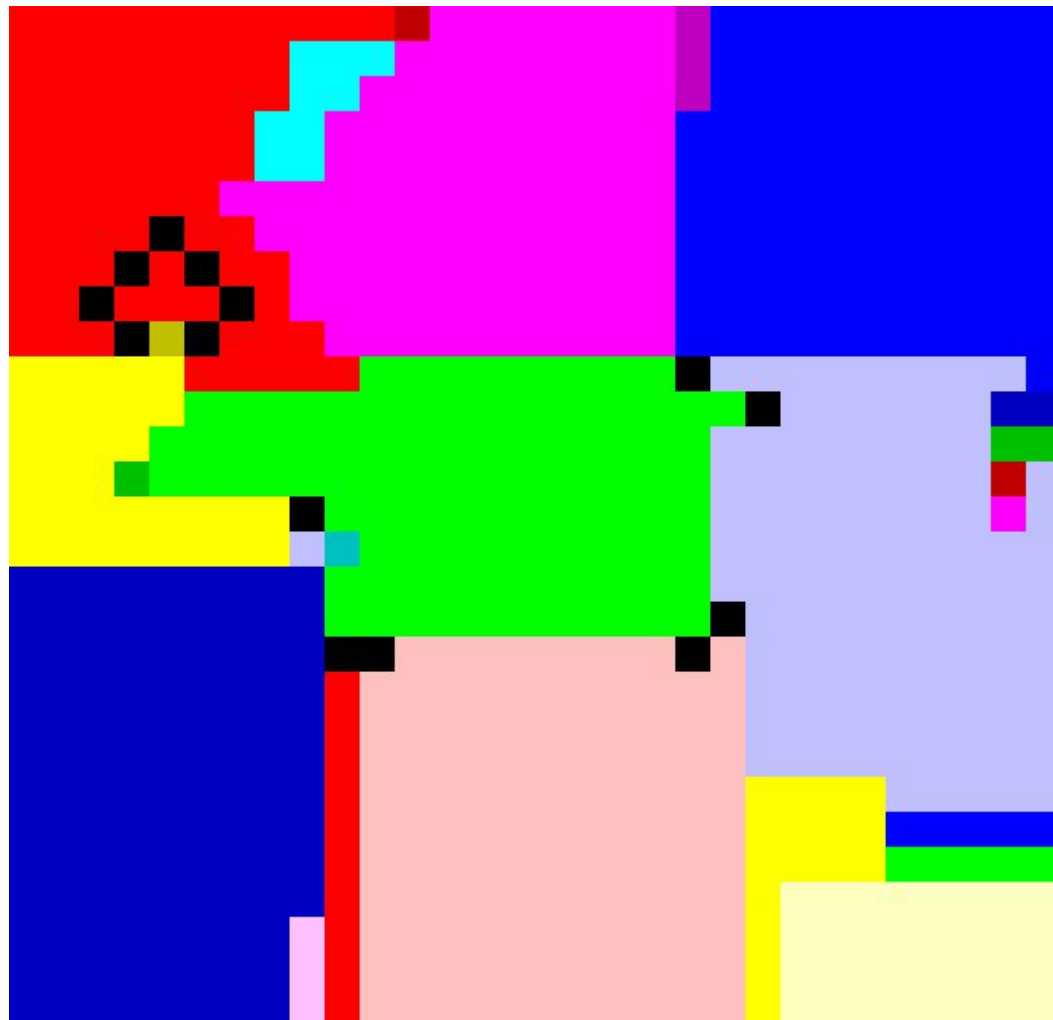


Hello World 3

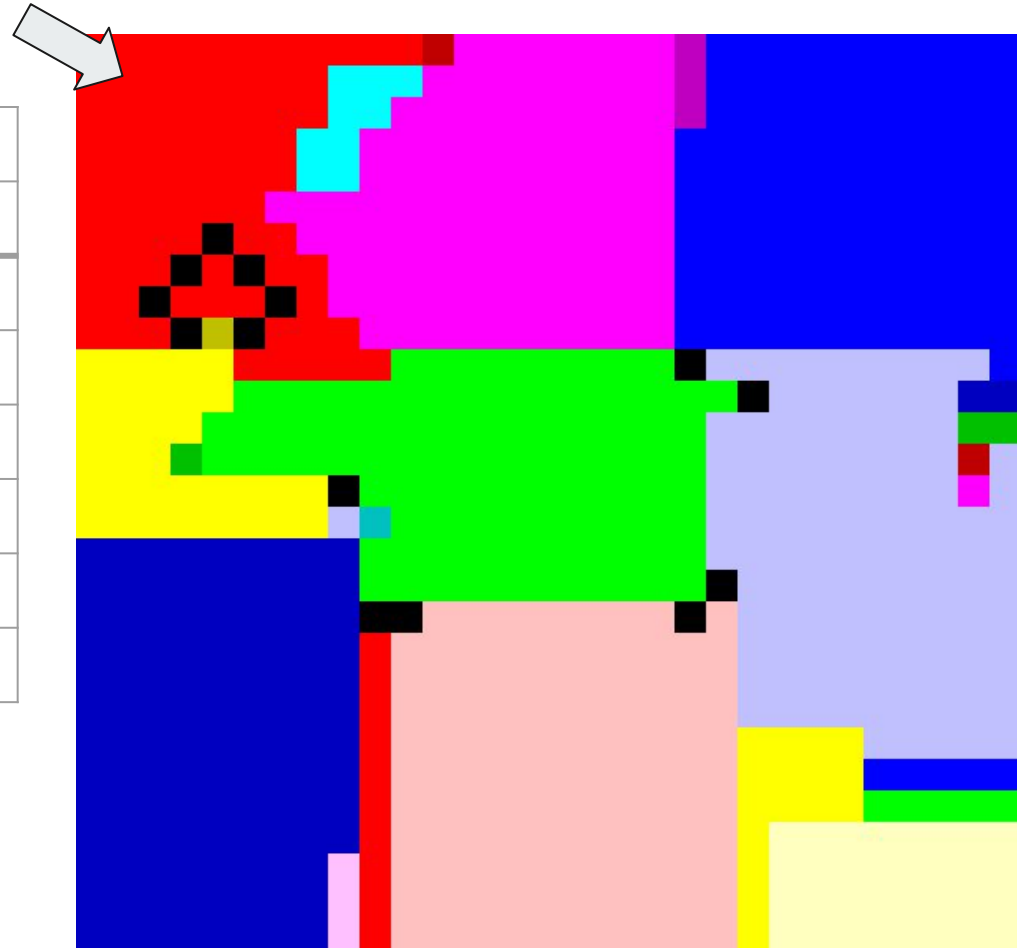


Hello World 4

Hello World 5

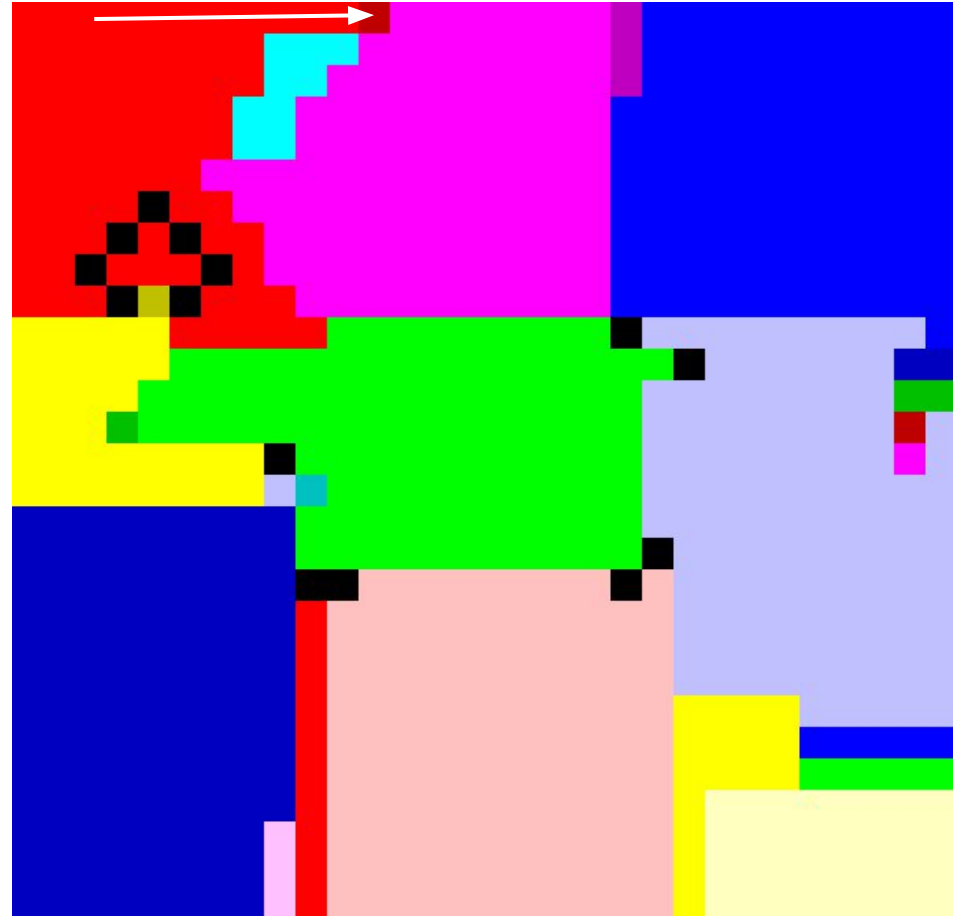


		Lightness change		
		None	1 darker	2 darker
Hue change	None		PUSH	POP
	1 step	ADD	SUB	MUL
	2 steps	DIV	MOD	NOT
	3 steps	>	POINTER	SWITCH
	4 steps	DUP	ROLL	IN(num)
	5 steps	IN(char)	OUT(num)	OUT(char)



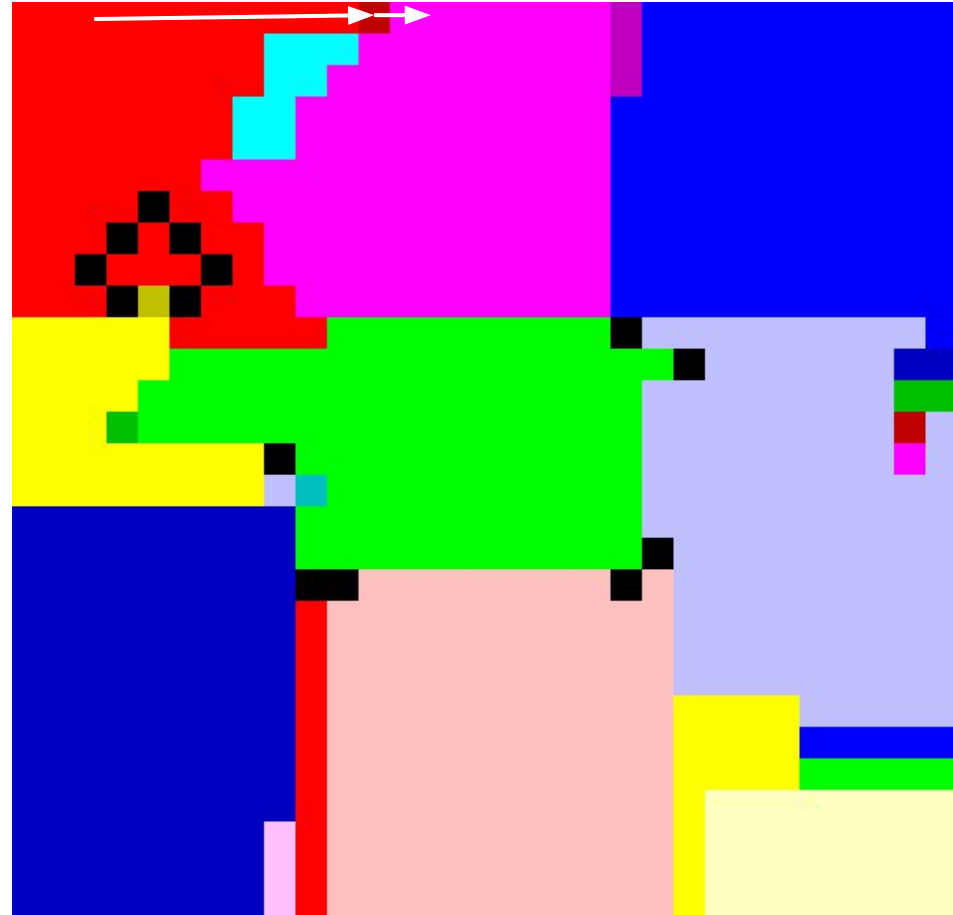
		Lightness change		
		None	1 darker	2 darker
Hue change	None		PUSH	POP
	1 step	ADD	SUB	MUL
	2 steps	DIV	MOD	NOT
	3 steps	>	POINTER	SWITCH
	4 steps	DUP	ROLL	IN(num)
	5 steps	IN(char)	OUT(num)	OUT(char)

PUSH 72



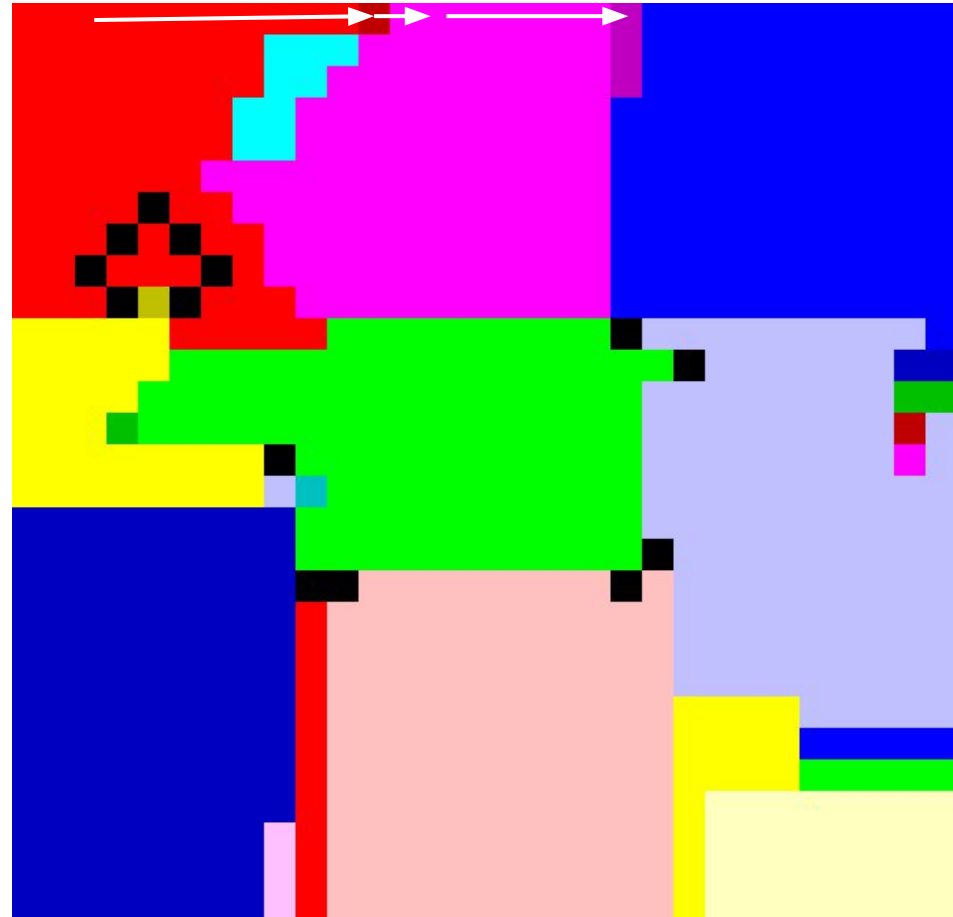
		Lightness change		
		None	1 darker	2 darker
Hue change	None		PUSH	POP
	1 step	ADD	SUB	MUL
	2 steps	DIV	MOD	NOT
	3 steps	>	POINTER	SWITCH
	4 steps	DUP	ROLL	IN(num)
	5 steps	IN(char)	OUT(num)	OUT(char)

PUSH 72
OUT(char) → H



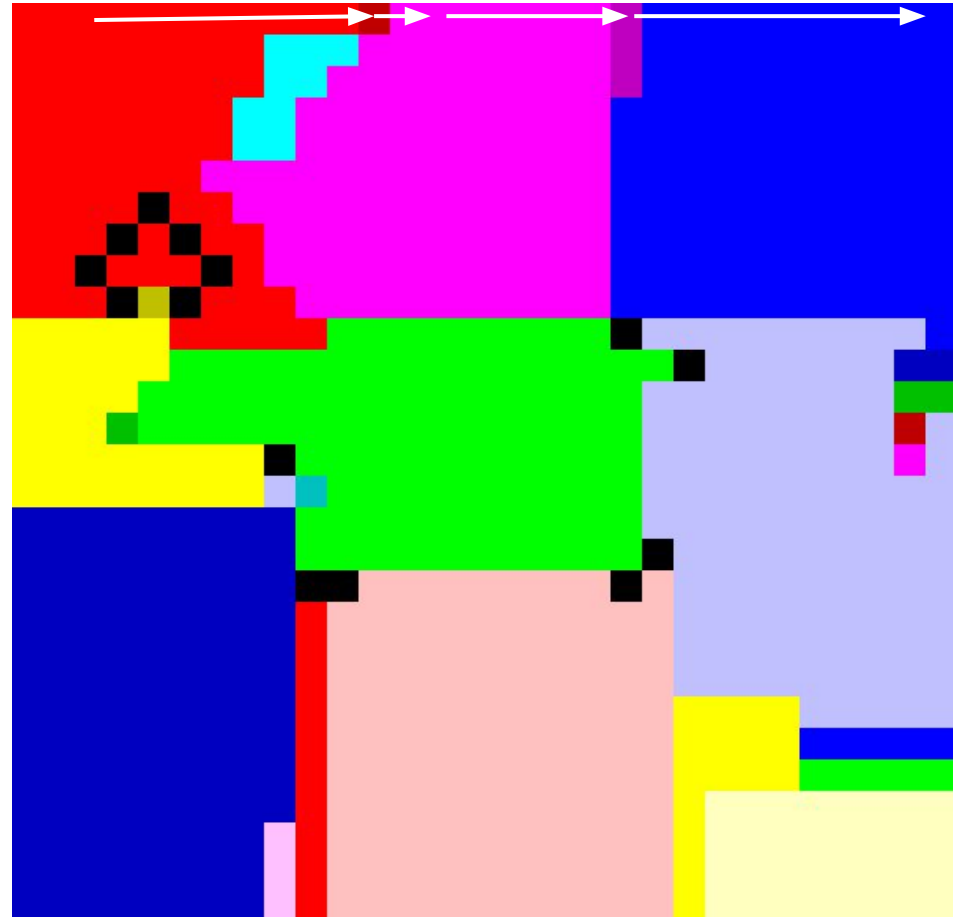
		Lightness change		
		None	1 darker	2 darker
Hue change	None		PUSH	POP
	1 step	ADD	SUB	MUL
	2 steps	DIV	MOD	NOT
	3 steps	>	POINTER	SWITCH
	4 steps	DUP	ROLL	IN(num)
	5 steps	IN(char)	OUT(num)	OUT(char)

PUSH 72
 OUT(char) → H
 PUSH 101



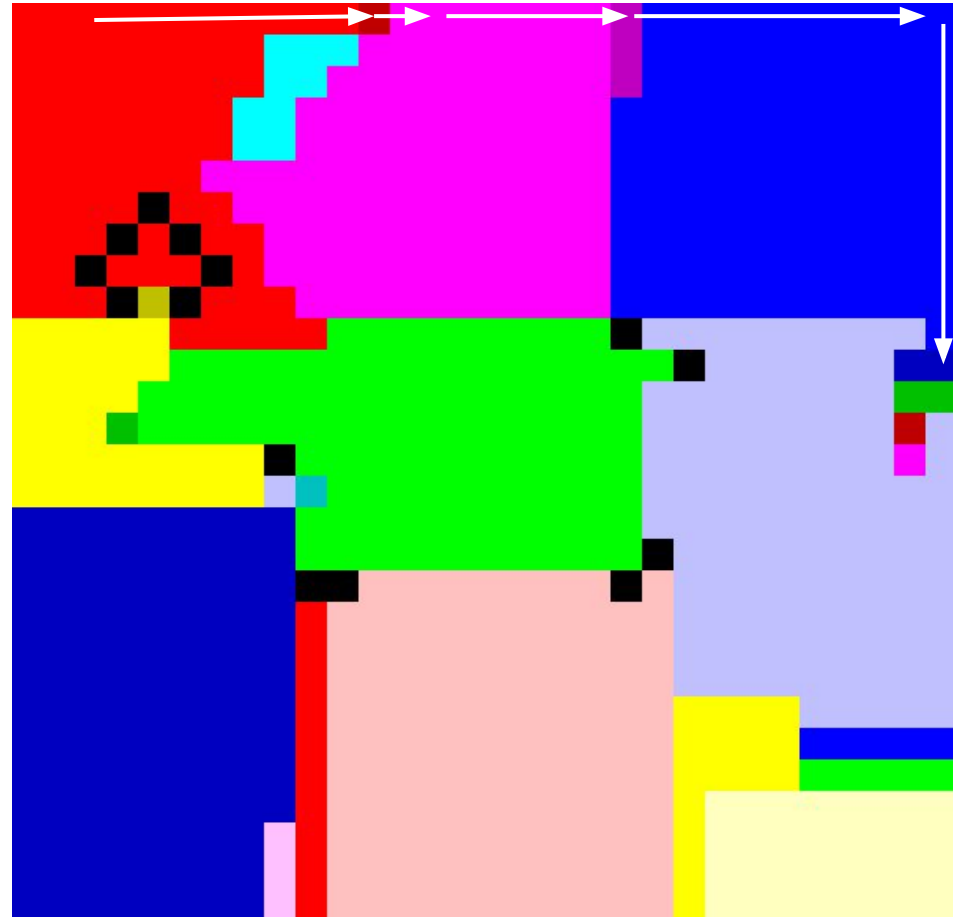
		Lightness change		
		None	1 darker	2 darker
Hue change	None		PUSH	POP
	1 step	ADD	SUB	MUL
	2 steps	DIV	MOD	NOT
	3 steps	>	POINTER	SWITCH
	4 steps	DUP	ROLL	IN(num)
	5 steps	IN(char)	OUT(num)	OUT(char)

PUSH 72
 OUT(char) → H
 PUSH 101
 OUT(char) → e



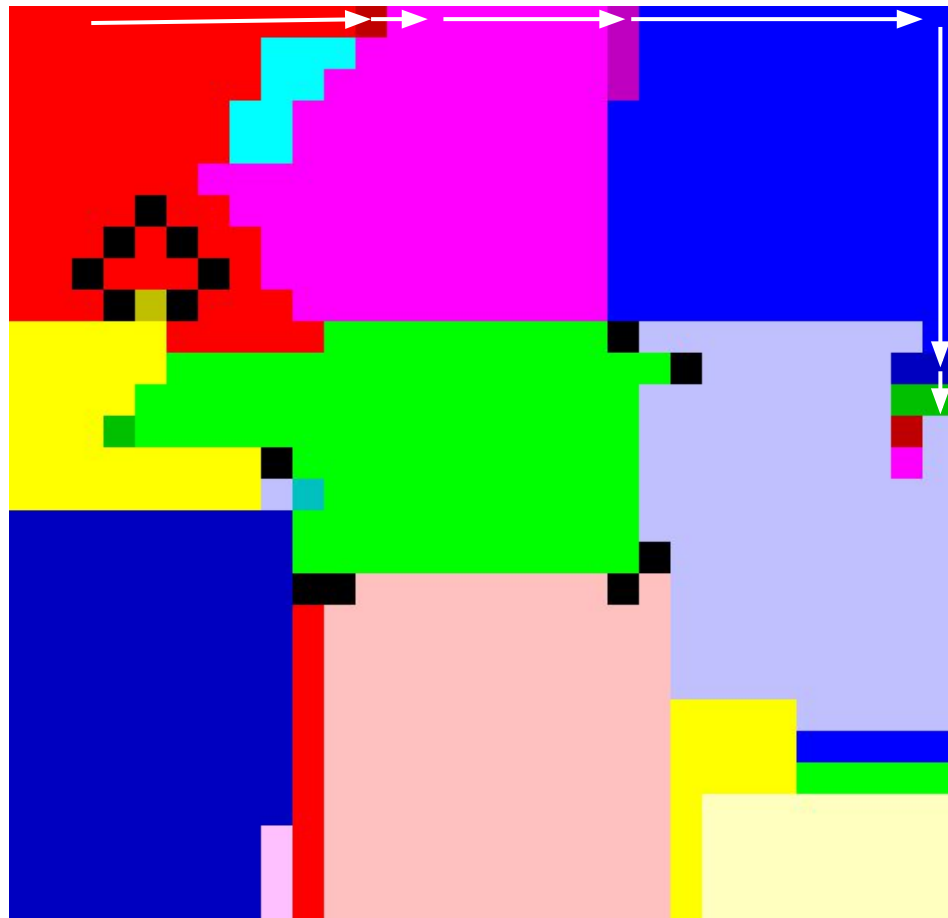
		Lightness change		
		None	1 darker	2 darker
Hue change	None		PUSH	POP
	1 step	ADD	SUB	MUL
	2 steps	DIV	MOD	NOT
	3 steps	>	POINTER	SWITCH
	4 steps	DUP	ROLL	IN(num)
	5 steps	IN(char)	OUT(num)	OUT(char)

PUSH 72
 OUT(char) → H
 PUSH 101
 OUT(char) → e
 PUSH 108



		Lightness change		
		None	1 darker	2 darker
Hue change	None		PUSH	POP
	1 step	ADD	SUB	MUL
	2 steps	DIV	MOD	NOT
	3 steps	>	POINTER	SWITCH
	4 steps	DUP	ROLL	IN(num)
	5 steps	IN(char)	OUT(num)	OUT(char)

PUSH 72
 OUT(char) → H
 PUSH 101
 OUT(char) → e
 PUSH 108
 DUP





Hello World 6