Page 1
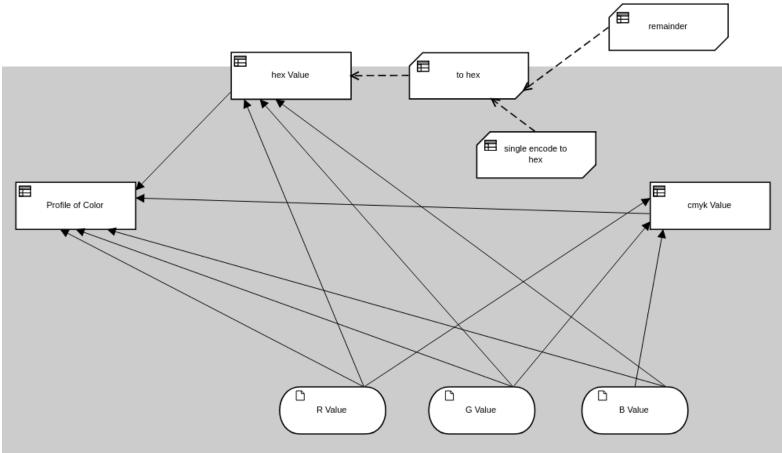
Decision Requirement Diagram

Elements

▭ remainder (Business Knowledge Model)

Decision Logic (Function - Expression)

remainder *Number*	
F	(num,divisor)

```
num-(floor(num/divisor)*divisor)
```

▭ hex Value (Decision)

Decision Logic (Literal Expression)

hex Value *Text*

```
"#" + to hex(R Value) + to hex(G Value) + to hex(B Value)
```

to hex (Business Knowledge Model)

Decision Logic (Function - Expression)

to hex
Text

F (num)

```
if num < 16
then "0" + single encode to hex(num)
else single encode to hex(floor(num/16)) + single encode to hex(remainder(num, 16))
```

single encode to hex (Business Knowledge Model)

Decision Logic (Function - Expression)

single encode to hex
Text

F (digit)

U	digit	mapping	Description
	[0..15]		
1	[0..9]	string(digit)	
2	10	"A"	
3	11	"B"	
4	12	"C"	
5	13	"D"	
6	14	"E"	
7	15	"F"	

mapping

Profile of Color (Decision)

Decision Logic (Context)

Profile of Color
tProfileofColor

Profile of Color	RGB notation	R	R Value
		G	G Value

		B	B Value
	Hex notation		hex Value
	CMYK notation		cmyk Value

Profile of Color

▣ cmyk Value (Decision)

Decision Logic (Context)

cmyk Value *tCMYK*			
Rn	R Value / 255		
Gn	G Value / 255		
Bn	B Value / 255		
Kn	1-max(Rn, Gn, Bn)		
Cn	if Kn=1 then 0 else (1-Rn-Kn) / (1-Kn)		
Mn	if Kn=1 then 0 else (1-Gn-Kn) / (1-Kn)		
Yn	if Kn=1 then 0 else (1-Bn-Kn) / (1-Kn)		
cmyk	C		decimal(Cn*100, 0)
	M		decimal(Mn*100, 0)
	Y		decimal(Yn*100, 0)
	K		decimal(Kn*100, 0)

cmyk

⬭ R Value (Input Data)

⬭ G Value (Input Data)

⬭ B Value (Input Data)

tValue

Number *[0..255]*

t015

Number

tCMYK

C	Number
M	Number
Y	Number
K	Number

tRGB

R	tValue
G	tValue
B	tValue

tProfileofColor

RGB notation	tRGB
Hex notation	Text
CMYK notation	tCMYK