

HASH Function:

1. convert the 3 char's to their 3 ASCII codes
(giving 3 int's, all between 65 to 90, inclusive)
2. multiply those 3 numbers together
(giving a number between $65*65*65=274,625$ through $90*90*90=729,000$)
3. use the famous "division-remainder" algorithm to get homeAddress
(i.e., use the remainder (the % operator) from dividing step #2 result by MAX_N_HOME_LOC)
(giving a number between 0 and MAX_N_HOME_LOC – 1, inclusive)
4. return that as the homeAddress

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90

Country Code	DRP (not ID)	3 ASCII codes	Multiplied together	Home Address
MEX	12			
CHN	23			
JPN	13			
USA	6			
FRA	19			
BEL	27			
GBR	2			
HTI	9			
VEN	14			
NIC	10			
POL	20			
YEM	30			
EGY	1			
LBN	3			
IND	15			
OMN	16			
DEU	24			
SOM	11			
WSM	7			
KEN	17			
XVI	4			
QAT	5			
ZWE	18			
RUS	8			
TCA	29			
ATA	21			

This structure is NOT in memory – it's just a worksheet to determine HOME ADDRESS (based on HashFunction)