

HASH Function:

1. convert the 3 char's in CODE to their 3 ASCII codes (giving 3 int's, all between 65 to 90, inclusive)

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
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. if remainder is 0, change it to MAX_N_HOME_LOC (giving a number between 1 and MAX_N_HOME_LOC, inclusive)
5. return that as the homeAddress

Country Code	3 ASCII codes	Multiplied together	Home Address
MEX			
CHN			
JPN			
USA			
FRA			
BEL			
GBR			
HTI			
VEN			
NIC			
POL			
YEM			
EGY			
LBN			
IND			
OMN			
DEU			
SOM			
WSM			
KEN			
XVI			
QAT			
ZWE			
RUS			
TCA			
ATA			

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