

CSCI2160Exer2F09SimpleASM

Assemble, link, and use Windbg to step through execution of the assembly program that will be generated from the below java/C/C++ code:

```
{
short sX=27;
short sY = 32;
short sZ;
int iX = 39;
int iY = 42;
int iZ;

sZ = sX + sY ;
iZ = iX + iY;

iZ = iX + sX + iY + (-32768); //screen shots before this "line" is executed and afterwards
sZ =(short) ( sX - iX - sZ + 32768);
iY = sX -iY ;
}
```

Assembly commands needed for this exercise:

mov	op1,op2	;op1 receives a copy of whatever is in op2
add	op1,op2	;op1 receives the sum of op1 and op2. SF,CF,OF, PF are set/cleared
sub	op1,op2	;op1 receives the difference op1-op2. SF,CF,OF,PF are set/cleared

cbw - To convert a byte to a word (automatically), the byte must be in AL. The command **cbw** will convert a byte to a word.

cwd - To convert a word to a double word , the word must be in AX. The command **cwd** will extend the value in AX across into the upper half of EAX.

Deliverables: Bring to class 10/1/09 at 9:05 already stapled the following(in the order listed):

Source code – well documented

Source listing

Screen Shots showing execution just before the block of code to execute the line indicated above and just AFTER execution of the last line for that code.

Drop onto D2L a zipped folder named **Exer2Lastname** that contains ALL **exer2.*** files