## Programmer's Reference to HLA Assembly Language Typical Program Structure *Available* Datatypes program progID; int8 #include( "stdlib.hhf" ); int16 int32 static variable declarations begin progID; boolean statements end progID; Assembly Language Instructions Instruction Syntax Description mov( dest = MOV source, Available I/O source; dest ); Routines add( stdout.put dest += ADD source, stdout.puti8 source; dest ); stdout.puti16 stdout.puti32 sub( dest -= stdout.putb SUB source, source; stdout.putw dest ); stdout.putd shuffles left a stdout.newln total of shl( count bits stdin.get SHL count, in dest stdin.geti8 dest ); operand; stdin.geti16 sets carry stdin.geti32 when stdin.getb count=1 stdin.getw shuffles stdin.getd right a total of count bits shr( SHR in dest count, dest ); operand; sets carry when count=1 shuffles sar( right a SAR count, total of dest );

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		count bits in dest operand; sets carry when count=1; leaves H.O. bit unchanged	
ROL	rol( count, dest );	rotates left a total of count bits in dest operand; sets carry when count=1	
ROR	ror( count, dest );	rotates right a total of count bits in dest operand; sets carry when count=1	
NOT	not( dest );	inverts the bits of the dest operand	
AND	and( source, dest );	bitwise logical AND; result placed in dest operand	
OR	or( source, dest );	bitwise inclusive OR; result placed in dest operand	

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XOR	xor( source, dest );	bitwise exclusive OR; result placed in dest operand	
LAHF	lahf( );	pushes the lower 8 bits of EFLAGS register into AH	

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