In the original code, the real number that had to be shown, had been previously rounded and then multiplied by 100000000000000000, and is into the st0 FPU register just ready to be store in memory in 18 digits BCD (Binary Coded Decimal) format.

With the new code we avoid the initial rounded code (frudint noped) and then obtain the decimal part and store it in memory just before do the same with the integer part to get an extra precision of the real number. Then we avoid again other rounded made in the original code (in normal asm). Indeed the memory space used for the last rounded is used to insert the new code.

Bytes

D9 C0 D9 C0 9B D9 7D E6 66 81 65 E6 FF F3 66 81 4D E6 00 0C D9 6D E6 D9 FC DE E9 66 B8 64 00 66 89 45 E6 DE 4D E6 DF 75 E8 DF 75 E9 9B DB E3

fld st(0),st(0) //store value in st0 also in st1

fld st(0),st(0) //now also in st2

fwait //Check pending unmasked floating-point exceptions

fnstew word ptr ss:[ebp-1A] //save FPU register control word in memory

and word ptr ss:[ebp-1A],F3FF //clears only the RC (Rounding Control) bits in FPU register control word, leaving all other bits unchanged or word ptr ss:[ebp-1A],C00 //set the RC bits to the FPU register control word to cero (00) -> truncate

fldcw word ptr ss:[ebp-1A] //load the FPU register control word with the new set bits

frndint //with these setting frndint make a truncate of the st0 register value

fsubp st(1),st(0) //subtract st1 minus st0 mov ax,64 //store \$64 (decimal 100) in ax

mov word ptr ss:[ebp-1A],ax //move ax to memory

fimul st(0), word ptr ss:[ebp-1A] //multiply value in st0 by decimal 100

fbstp tword ptr ss:[ebp-18],st(0) //store integer part of st0 value into 18 digits BCD (Binary Coded Decimal) format ans store it in memory and

//pop st0

fbstp tword ptr ss:[ebp-17],st(0)

fwait //Check pending unmasked floating-point exceptions

fininit //Initialize FPU without checking for pending unmasked floating-point exceptions