

PŘENOSOVÉ INSTRUKCE		
FLD	src mem32/64 st(i)	Load Float $src \rightarrow ST(0)$
FILD	src mem16/32/64	Load Integer $src \rightarrow ST(0)$
FST(P)	dest mem32/64 st(i)	Store Real $ST(0) \rightarrow dst$ if *P then POP
FIST(P) P	dst mem16/32 mem16/32/64	Store Integer $ST(0) \rightarrow dst$ if *P then POP
FXCH	dst st(i) none $\Rightarrow ST(1)$	Exchange Register Contents $ST(0) \leftrightarrow st(i)$
KONSTANTY $const \rightarrow ST(0)$		
FLD1		Load 1
FLDZ		Load 0
FLDPI		Load $\pi$
FLDL2T		Load $\log_2(10)$
FLDL2E		Load $\log_2(e)$
FLDLG2		Load $\log_{10}(2)$
FLDLN2		Load $\ln(2)$
PUSH FLD	<code>__FLOAT32__(fimm)</code> DWORD [ESP]	Load any constant
ARITMETICKÉ INSTRUKCE (kombinace a principy v F(I)ADD(P) - jsou stejné)		
FADD	dst, src none $\Rightarrow ST(0)$ , mem32/64 st(i), ST(0) ST(0), st(i)	Addition $dst + src \rightarrow dest$
FADDP	dst, src st(i), ST(0) none $\Rightarrow ST(1)$ , none $\Rightarrow ST(0)$	Addition (with pop) $dst + src \rightarrow dest$ POP
FIADD	src mem16/32	Integer Addition $ST(0) + src \rightarrow ST(0)$
FSUB	dst, src none $\Rightarrow ST(0)$ , mem32/64 st(i), ST(0) ST(0), st(i)	Subtraction $dst - src \rightarrow dest$
FSUBP	dst, src st(i), ST(0) none $\Rightarrow ST(1)$ , none $\Rightarrow ST(0)$	Addition (/w pop) $dst - src \rightarrow dest$ POP
FISUB	src mem16/32	Integer Subtraction $ST(0) + src \rightarrow ST(0)$
FSUBR(P) FISUBR	dst, src src	Reverse Subtraction (same princ. and comb. as FSUB) $src - dst \rightarrow dst$

FMUL(P) dst, src FIMUL src	Multiplication $dst * src \rightarrow dst$
FDIV(P) dst, src FIDIV src	Division $dst / src \rightarrow dst$
FDIVR(P) dst, src FIDIVR src	Reverse Division $src / dst \rightarrow dst$
FABS	Absolute Value $ ST(0)  \rightarrow ST(0)$
FCHS	Change Sign $-ST(0) \rightarrow ST(0)$
FSQRT	Square Root $\sqrt{ST(0)} \rightarrow ST(0)$
FRNDINT	Round to integer $Round(ST(0)) \rightarrow ST(0)$
<b>POROVNÁVACÍ INSTRUKCE</b>	
FCOM(P) src mem32/64 st(i) none $\Rightarrow ST(1)$	Compare $ST(0) > src : 000 \rightarrow C3, C2, C0$ $ST(0) < src : 001 \rightarrow C3, C2, C0$ $ST(0) = src : 100 \rightarrow C3, C2, C0$
FCOMPP src none $\Rightarrow ST(1)$	Compare and pop both (same as FCOM, but pops both)
FICOM(P) src mem16/32	Compare with integer (same as FCOM)
FCOMI(P) src st(i)	Compare and set EFLAGS $ST(0) > src : 000 \rightarrow ZF, PF, CF$ $ST(0) < src : 001 \rightarrow ZF, PF, CF$ $ST(0) = src : 100 \rightarrow ZF, PF, CF$
FTST	Test $ST(0) > 0 : 000 \rightarrow C3, C2, C0$ $ST(0) < 0 : 001 \rightarrow C3, C2, C0$ $ST(0) = 0 : 100 \rightarrow C3, C2, C0$
FXAM	Examine unsupported : 000 $\rightarrow C3, C2, C0$ NaN : 001 $\rightarrow C3, C2, C0$ normal : 010 $\rightarrow C3, C2, C0$ infinity : 011 $\rightarrow C3, C2, C0$ zero : 100 $\rightarrow C3, C2, C0$ empty : 101 $\rightarrow C3, C2, C0$ denormal : 110 $\rightarrow C3, C2, C0$
<b>TRANSCENDENTNÍ INSTRUKCE</b>	
FSIN	Sine $if  ST(0)  < 2^{63} then 1 \rightarrow C2$ $else sin(ST(0)) \rightarrow ST(0)$
FCOS	Cosine $if  ST(0)  < 2^{63} then 1 \rightarrow C2$ $else cos(ST(0)) \rightarrow ST(0)$

FSINCOS	Sine and Cosine <i>if</i> $ ST(0)  < 2^{63}$ <i>then</i> $1 \rightarrow C2$ <i>else</i> $\sin(ST(0)) \rightarrow ST(1)$ <i>and</i> $\cos(ST(0)) \rightarrow ST(0)$
FPTAN	Partial Tangent <i>if</i> $ ST(0)  < 2^{63}$ <i>then</i> $1 \rightarrow C2$ <i>else</i> $\tan(ST(0)) \rightarrow ST(1)$ <i>and</i> $1 \rightarrow ST(0)$
FPATAN	Partial Arctangent $\arctan(ST(1)/ST(0)) \rightarrow ST(1)$ POP
F2XM1	Compute $2^x - 1$ <i>if</i> $ST(0) \text{ in } \langle -1, 1 \rangle$ <i>then</i> $2^{ST(0)} - 1 \rightarrow ST(0)$
FYL2X	Compute $y * \log_2 X$ <i>if</i> $ST(0) > 0$ <i>then</i> $ST(1) * \log_2(ST(0)) \rightarrow ST(1)$ <i>and</i> POP

## ŘÍDÍCÍ INSTRUKCE

(modifier N = nečeká na spracování FPU výjimek)

<del>F(N)INIT</del>	<del>Set FPU to initial state</del>
F(N)STCW   dst mem16	Store Control Word $FPUControlWord \rightarrow dst$
FLCDW       src mem16	Load Control Word $src \rightarrow FPUControlWord$
F(N)STSW   dst mem16 AX	Store Status Word $FPUStatusWord \rightarrow dst$
F(N)STENV   dst mem14B/28B	Store FPU Environment $FPUEnvironment \rightarrow dst$
FLDENV       src mem14B/28B	Load FPU Environment $src \rightarrow FPUEnvironment$
F(N)SAVE    dst mem94B/108B	Store FPU State $FPUState \rightarrow dst$ FINIT
FRSTOR       src mem94B/108B	Restore FPU State $src \rightarrow FPUState$
FFREE	Free FPU Registers
FWAIT	Wait (for sync. of CPU and FPU)
FNOP	No Operation
FINCSTP	Increment Stack-Top Pointer
FDECSTP	Decrement Stack-Top Pointer