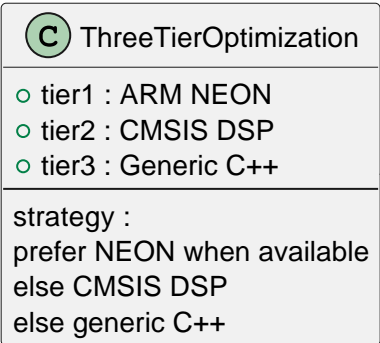
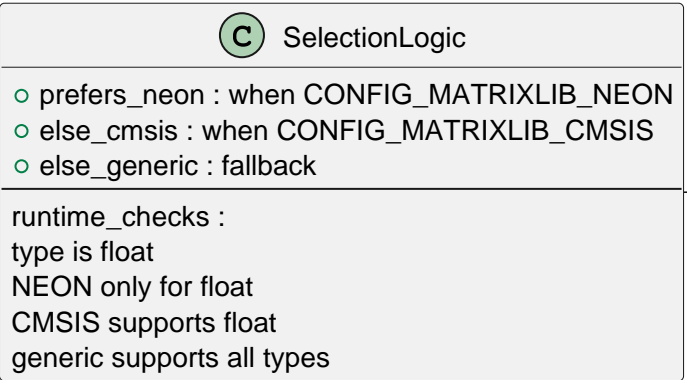


SIMD Optimization Strategy



Three tier optimization strategy:
Tier 1: ARM NEON
Tier 2: CMSIS DSP
Tier 3: Generic C++ templates

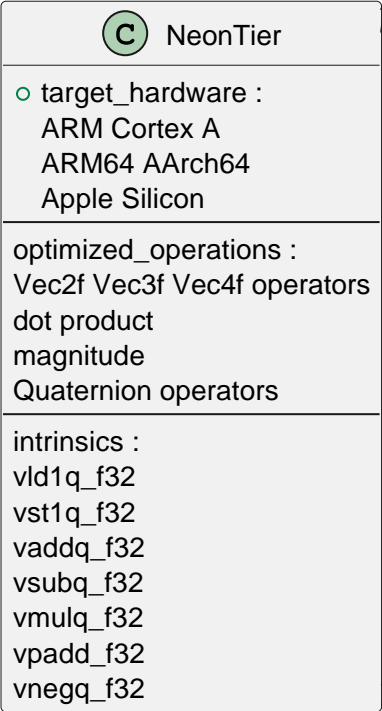


Pseudocode:
if NEON available
 use NEON
else if CMSIS available
 use CMSIS
else
 use generic C++

tier 1

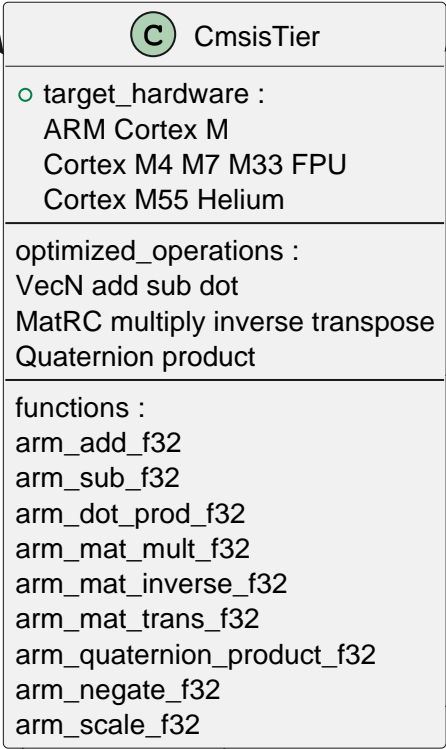
tier 2

tier 3



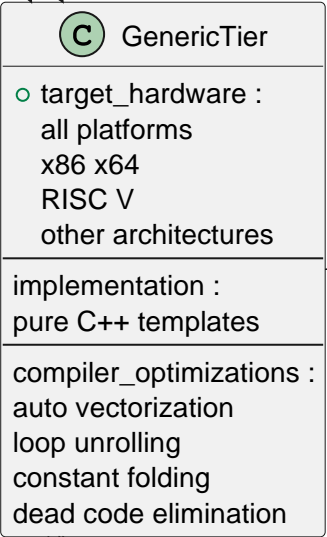
Enable with:
CONFIG_MATRIXLIB_NEON

Detection:
ifdef __ARM_NEON
include arm_neon.h



Enable with:
CONFIG_MATRIXLIB_CMSIS

Detection:
ifdef ARM_MATRIX_CM4
include arm_math.h



Always available.
No configuration needed.

Typical flags:
GCC O2 O3
Clang O2 O3
MSVC O2

