

PORTABILITY

HPI
OPENP } depends on target hw

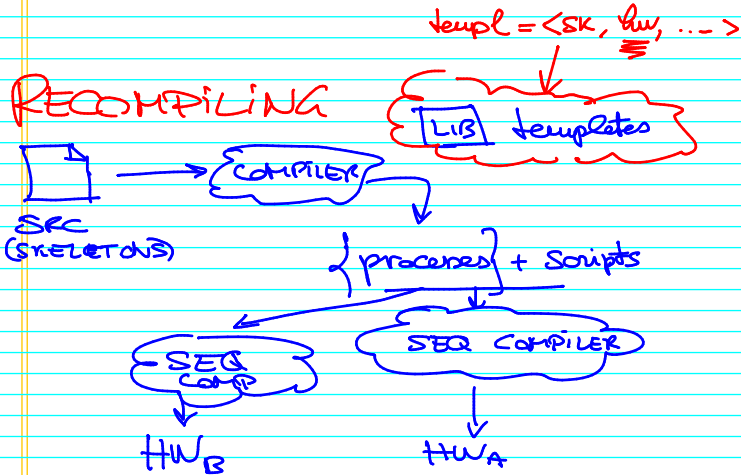
STRUCTURED PROGRAM. MODELS

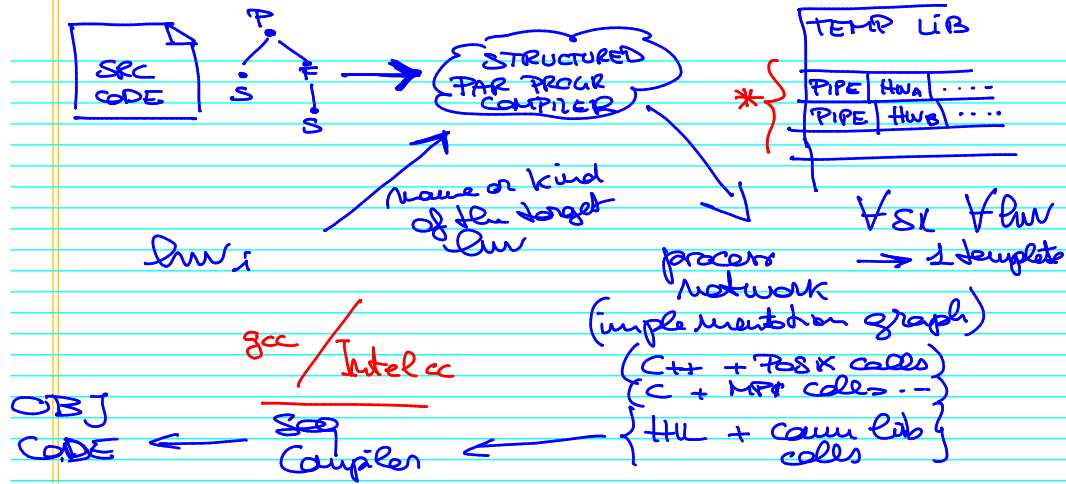
TEMPLATES

HDF INTERPRETER

1) RECOMPILING

2) VIRTUAL MACHINES





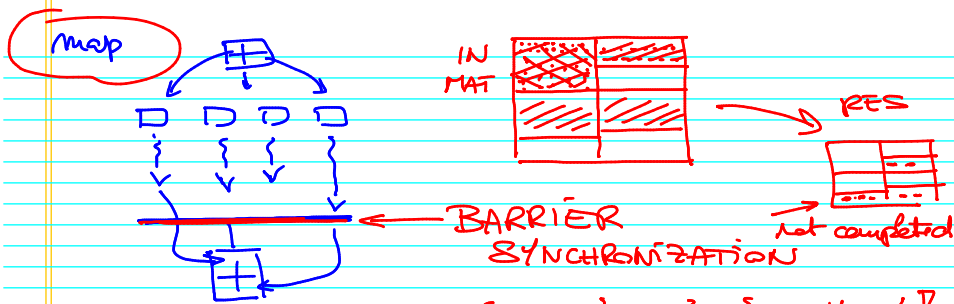
1) SPECIALIZED TEMPLATES

2) SPECIALIZED "Seq" COMPILERS

↳ PORTABILITY OF THE PROGRAM FRAMEWORK

↳ PROGRAM PORTABILITY

↖
FUNCTIONAL PORTABILITY



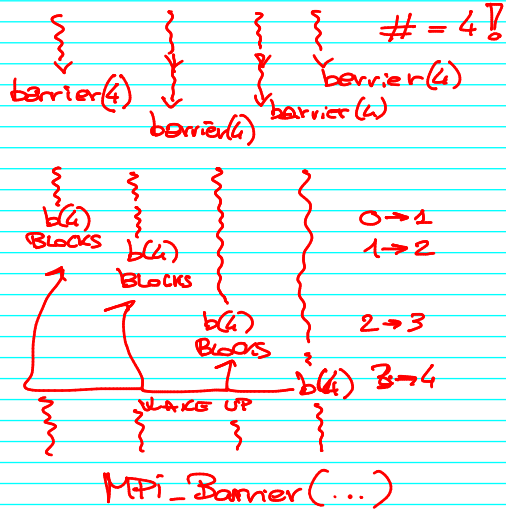
$H/A \rightarrow H/B$
 has "broadcast" has not

Team (Barrier)

$O(1)$ rarely achieved

$O(\log(n))$

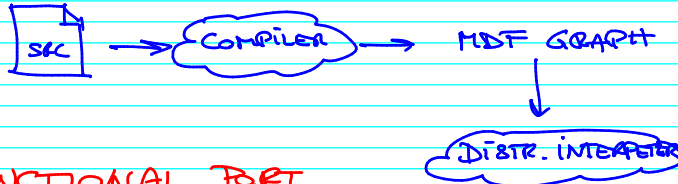
$O(n)$



→ FUNCTIONAL PORTABILITY (OK)

→ PERFORMANCE PORTABILITY (HARDER TO ACHIEVE)

MDF BASED IMPLEMENTATIONS



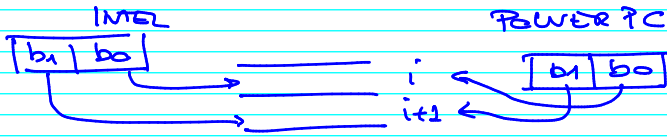
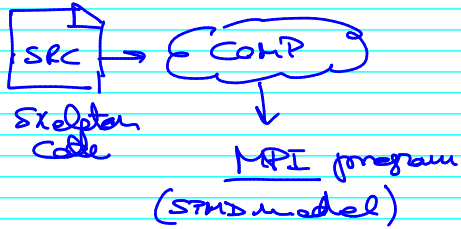
FUNCTIONAL PORT.

↳ PORT OF MDF INTERPRETER

PERF. PORTABILITY

↳ PROPER IMPLEMENTATION OF MDF INTERPRETER

VIRTUAL MACHINES



FUNCTIONAL } PORTABILITY } ? → GUARANTEED
 PERFORMANCE } } ? → PARTIALLY GUARANTEED

(PROVIDED WE USE
 MECHANISMS WITH THE
 SAME EFFICIENCY)

