

HPFC (High Performance Fortran Compiler) datastructure

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Introduction

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import align from "hpf.newgen"

import distribute from "hpf.newgen"

import entity from "ri.newgen"

import entity_int from "ri.newgen"

import statement from "ri.newgen"

import reduction_operator from "reductions_private.newgen"

entities = list:entity*

entity_entities = entity->entities

renaming = old:entity x new:entity

statement_renamings = persistant statement->renaming*

statement_entities = persistant statement->entities

entitymap = entity->entity

overlap = lower:int x upper:int

overlapsmap = entity->overlap*

hpf_newdecl = { none , alpha , beta , gamma , delta }

hpf_newdecls = dimensions:hpf_newdecl*
```

```

alignmap = entity->align

distributemap = entity->distribute

newdeclmap = entity->hpf_newdecls

entity_status = new_host:entitymap x new_node:entitymap x
old_host:entitymap x old_node:entitymap x referenced:entity_int

data_status = newdeclmap x alignmap x distributemap x
arrays:entity* x templates:entity* x processors:entity*

numbers_status = numbermap:entity_int x arrays:int x
templates:int x processors:int

dynamic_status = dynamics:entity_entities x primary:entitymap x
renamings:statement_renamings x tokeep:statement_entities

remapping = renaming x referenced:entity*

hpfc_status = overlapsmap x data_status x numbers_status x
entity_status x commons:entity* x dynamic_status x pures:entity* x
ios:entity* x computed:remapping* x reductions:statement_entities

hpfc_reductions = initial:entity x replacement:entity x
operator:reduction_operator

```