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-- file SymTabDefs.Mesa
-- last modified by Satterthwaite, March 20, 1978 4:33 PM

DIRECTORY
  StringDefs: FROM "stringdefs",
  SymDefs: FROM "symdefs";

SymTabDefs: DEFINITIONS =
  BEGIN
    OPEN SymDefs;

-- implemented by SymbolTable

-- hash manipulation

  FindString: PROCEDURE [StringDefs.SubString] RETURNS [HTIndex];
  HashValue: PROCEDURE [StringDefs.SubString] RETURNS [HVIndex];
  SubStringForHash: PROCEDURE [StringDefs.SubString, HTIndex];

-- context management

  CtxEntries: PROCEDURE [CTXIndex] RETURNS [CARDINAL];
  FirstCtxSe: PROCEDURE [CTXIndex] RETURNS [ISEIndex];
  NextSe: PROCEDURE [ISEIndex] RETURNS [ISEIndex];
  SearchContext: PROCEDURE [hti: HTIndex, ctx: CTXIndex] RETURNS [ISEIndex];

-- type manipulation

  NormalType: PROCEDURE [CSEIndex] RETURNS [CSEIndex];
  RecordLink: PROCEDURE [recordCSEIndex] RETURNS [recordCSEIndex];
  RecordRoot: PROCEDURE [recordCSEIndex] RETURNS [recordCSEIndex];
  TransferTypes: PROCEDURE [SEIndex] RETURNS [typeIn, typeOut: recordCSEIndex];
  TypeForm: PROCEDURE [SEIndex] RETURNS [TypeClass];
  TypeLink: PROCEDURE [SEIndex] RETURNS [SEIndex];
  TypeRoot: PROCEDURE [SEIndex] RETURNS [CSEIndex];
  UnderType: PROCEDURE [SEIndex] RETURNS [CSEIndex];
  XferMode: PROCEDURE [SEIndex] RETURNS [TransferMode];

-- information returning procedures

  BitsForRange: PROCEDURE [CARDINAL] RETURNS [CARDINAL];
  BitsForType: PROCEDURE [SEIndex] RETURNS [CARDINAL];
  Cardinality: PROCEDURE [SEIndex] RETURNS [CARDINAL];
  FnField: PROCEDURE [ISEIndex] RETURNS [offset: BitAddress, size: CARDINAL];
  WordsForType: PROCEDURE [SEIndex] RETURNS [CARDINAL];

-- implemented by SymTab (extensions for building tables)

  symtabinit, symtaberase: PROCEDURE;

-- hash manipulation

  EnterString: PROCEDURE [StringDefs.SubString] RETURNS [HTIndex];
  hashblock: PROCEDURE RETURNS [base: POINTER, length: CARDINAL];

-- context management

  nextlevel: PROCEDURE [ContextLevel] RETURNS [ContextLevel];
  makenewctx: PROCEDURE [ContextLevel] RETURNS [CTXIndex];
  resetctxlist: PROCEDURE [CTXIndex];
  firstvisiblse: PROCEDURE [CTXIndex] RETURNS [ISEIndex];
  visiblectxentries: PROCEDURE [CTXIndex] RETURNS [CARDINAL];
  ContextVariant: PROCEDURE [CTXIndex] RETURNS [ISEIndex];

  StaticNestError: SIGNAL;

  makectxse: PROCEDURE [hti: HTIndex, ctx: CTXIndex] RETURNS [ISEIndex];
  makenonctxse: PROCEDURE [CARDINAL] RETURNS [CSEIndex];

  makeSEChain: PROCEDURE [CTXIndex, CARDINAL, BOOLEAN] RETURNS [ISEIndex];
  fillctxse: PROCEDURE [ISEIndex, HTIndex, BOOLEAN];
  NameClash: SIGNAL [hti: HTIndex];
  setselink: PROCEDURE [sei, next: ISEIndex];

-- attribute testing

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ConstantId: PROCEDURE [ISEIndex] RETURNS [BOOLEAN];  
END...
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