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-- file TableDefs.Mesa
-- last modified by Satterthwaite, August 18, 1977 10:52 AM

DIRECTORY
  AltoDefs: FROM "altodefs";

TableDefs: DEFINITIONS =
  BEGIN

    TableSelector: TYPE = INTEGER [0..8];

    -- tables for the compiler (adjust TableSelector also)
    treetype: TableSelector = 0;
    setype: TableSelector = 1;
    htttype: TableSelector = 2;
    sstype: TableSelector = 3;
    ctxtype: TableSelector = 4;
    mdtype: TableSelector = 5;
    bodytype: TableSelector = 6;
    ltttype: TableSelector = 7;
    sttype: TableSelector = 8;

    TableBase: TYPE = [0..AltoDefs.VMLimit];
    TableLimit: CARDINAL = 40000B;
    TableIndex: TYPE = POINTER [0..TableLimit];
    OrderedTableIndex: TYPE = ORDERED POINTER [0..TableLimit];

    -- allocation from the tables as stacks

    Allocate: PROCEDURE [table: TableSelector, size: CARDINAL] RETURNS [OrderedTableIndex];
    TableBounds: PROCEDURE [table: TableSelector] RETURNS [base: TableBase, size: CARDINAL];
    TableOverflow: SIGNAL RETURNS [origin, limit: CARDINAL];
    TableFailure: ERROR [table: TableSelector];

    -- allocation from free list (first table only)

    chunktype: TableSelector = FIRST[TableSelector];

    GetChunk: PROCEDURE [size: CARDINAL] RETURNS [TableIndex];
    FreeChunk: PROCEDURE [i: TableIndex, size: CARDINAL];

    -- notification of repacking

    TableNotifier: TYPE = PROCEDURE [base: DESCRIPTOR FOR ARRAY TableSelector OF TableBase];

    AddNotify: PROCEDURE [proc: TableNotifier];
    DropNotify: PROCEDURE [proc: TableNotifier];

    -- initialization and termination

    InitializeTable: PROCEDURE [origin, size: CARDINAL];
    EraseTable: PROCEDURE;

  END.
```