DIRECTORY
AltoDefs: FROM "altodefs",
BcdHeapDefs: FROM "BcdHeapDefs",
FSPDefs: FROM "fspdefs",
StringDefs: FROM "stringdefs",
SystemDefs: FROM "systemdefs";

DEFINITIONS FROM FSPDefs;

BcdHeap: PROGRAM
IMPORTS FSPDefs, StringDefs, SystemDefs EXPORTS BcdHeapDefs = PUBLIC
BEGIN

Heap: PRIVATE ZonePointer ~ NIL;

BEGIN OPEN SystemDefs;
np: CARDINAL;
p ~ MakeNode[Heap, nwords
INoRoomInZone =>
BEGIN np ~ MAX[PagesForWords[nwords + ZoneOverhead + 1--NodeOverhead--], 2];
AddToNewZone[Heap, AllocatePages[np], np*AltoDefs.PageSize, FreePages];
RESUME
END];
RETURN
END;

FreeSpace: PROCEDURE [p: POINTER] =
BEGIN
FreeNode[Heap, p]; RETURN
END;

BEGIN OPEN StringDefs;
p ~ GetString[WordsForString[nchars]]; p~ [length:0, maxlength:nchars, text:];
RETURN
END;

FreeString: PROCEDURE [s: STRING] = LOOPHOLE[FreeSpace];

InitHeap: PROCEDURE =
BEGIN
IF Heap # NIL THEN EraseHeap[];
Heap ~
MakeNewZone[SystemDefs.AllocatePages[8], 8*AltoDefs.PageSize, SystemDefs.FreePages];
RETURN
END;

EraseHeap: PROCEDURE =
BEGIN
DestroyZone[Heap];
Heap ~ NIL;
RETURN
END;

END.