

-- BootDefs.Mesa Edited by Sandman on July 22, 1977 2:18 PM

## DIRECTORY

AltoDefs: FROM "altodefs",  
AltoFileDefs: FROM "altofiledefs",  
SegmentDefs: FROM "segmentdefs";

DEFINITIONS FROM SegmentDefs;

BootDefs: DEFINITIONS SHARES SegmentDefs = BEGIN

-- Boot Primitive Objects

BootDataSegment: PROCEDURE [base: PageNumber, pages: PageCount]  
 RETURNS [seg: DataSegmentHandle];  
BootFileSegment: PROCEDURE [file: FileHandle, base: PageNumber,  
 pages: PageCount, access: AccessOptions, addr: POINTER]  
 RETURNS [seg: FileSegmentHandle];  
BootFile: PROCEDURE [access: AccessOptions] RETURNS [file: FileHandle];

-- Free Objects

Frob: TYPE = Free Object;  
FrobHandle: TYPE = POINTER TO Frob;

-- Primitive Object Tables

TableHandle: TYPE = POINTER TO Table;

Table: TYPE = RECORD [  
 size: CARDINAL,  
 link: SubTableHandle];

SubTableHandle: TYPE = POINTER TO SubTable;

SubTable: TYPE = RECORD [  
 link: SubTableHandle,  
 free: FrobHandle,  
 seal, alloc: AltoDefs.BYTE,  
 seg: DataSegmentHandle];

SystemTable: TYPE = RECORD [  
 pagemap: POINTER TO ARRAY [0..15] OF WORD,  
 datasegs, filesegs, files: TableHandle];

SystemTableHandle: TYPE = POINTER TO SystemTable;

-- Table Management

GetPageMap: PROCEDURE RETURNS [POINTER];  
GetFileTable: PROCEDURE RETURNS [TableHandle];  
GetFileSegmentTable: PROCEDURE RETURNS [TableHandle];  
GetDataSegmentTable: PROCEDURE RETURNS [TableHandle];  
GetSystemTable: PROCEDURE RETURNS [SystemTableHandle];

-- Object Management

InvalidObject: SIGNAL [table: TableHandle, object: POINTER];  
AllocateObject: PROCEDURE [table: TableHandle] RETURNS [ObjectHandle];  
LiberateObject: PROCEDURE [table: TableHandle, object: ObjectHandle];  
ValidateObject: PROCEDURE [table: TableHandle, object: ObjectHandle];  
EnumerateObjects: PROCEDURE [table: TableHandle,  
 proc: PROCEDURE [ObjectHandle] RETURNS [BOOLEAN]]  
 RETURNS [object: ObjectHandle];

-- File Length Operations

NormalizeFileIndex: PROCEDURE [page: PageNumber, byte: CARDINAL]  
 RETURNS [PageNumber, CARDINAL];  
RoundFileIndex: PROCEDURE [page: PageNumber, byte: CARDINAL]  
 RETURNS [PageNumber, CARDINAL];  
TruncateFileIndex: PROCEDURE [page: PageNumber, byte: CARDINAL]  
 RETURNS [PageNumber, CARDINAL];

-- File Segment Positioning

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FindSegHint: PROCEDURE [seg: FileSegmentHandle];  
PositionSeg: PROCEDURE [seg: FileSegmentHandle, useseg: BOOLEAN] RETURNS [BOOLEAN];  
MapVM: PROCEDURE [seg: FileSegmentHandle, dc: AltoFileDefs.vDC];  
END.
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