

-- AltoFileDefs.Mesa Edited by Sandman on April 10, 1978 10:08 AM

DIRECTORY AltoDefs: FROM "altodefs";

DEFINITIONS FROM AltoDefs;

AltoFileDefs: DEFINITIONS = BEGIN

TIME: TYPE = MACHINE DEPENDENT RECORD [high, low: CARDINAL];

-- B A S I C D I S K S T U F F

-- virtual disk address

vDA: TYPE = RECORD [CARDINAL];

-- vDAs with special meaning

eofDA: vDA = vDA[17777B];

fillinDA: vDA = vDA[17776B];

-- virtual disk command

vDC: TYPE = {
 ReadHLD, ReadLD, ReadD,
 WriteHLD, WriteLD, WriteD,
 SeekOnly, DoNothing};

-- F I L E D E S C R I P T O R S

-- serial number

SN: TYPE = MACHINE DEPENDENT RECORD [
 directory, random, nolog: [0..1],
 part1: [0..17777B],
 part2: CARDINAL];

NullSN: SN = SN[1, 0, 1, 17777B, 177777B];

-- short file pointer

FP: TYPE = RECORD [
 serial: SN,
 leaderDA: vDA];

NullFP: FP = FP[serial: NullSN, leaderDA: eofDA];

-- complete file pointer

CFP: TYPE = MACHINE DEPENDENT RECORD [
 serial: SN,
 version: CARDINAL,
 blank: UNSPECIFIED,
 leaderDA: vDA];

-- file hint

FH: TYPE = RECORD [
 da: vDA,
 page: PageNumber];

-- file index

FI: TYPE = RECORD [
 page: PageNumber,
 byte: CARDINAL];

-- file address

FA: TYPE = MACHINE DEPENDENT RECORD [
 da: vDA,
 page: CARDINAL,
 byte: CARDINAL];

-- complete file address

CFA: TYPE = RECORD [fp:FP, fa:FA];

-- L E A D E R P A G E

-- file properties (sans body)

FIP: TYPE = MACHINE DEPENDENT RECORD [
 type, length: BYTE];

```
-- leader page (page zero)
LD: TYPE = MACHINE DEPENDENT RECORD [
  created, written, read: TIME,
  name: ARRAY [0..FilenameWords) OF UNSPECIFIED,
  props: ARRAY [0..210) OF UNSPECIFIED,
  spare: ARRAY[0..256
    -3*SIZE[TIME]-FilenameWords-210-2
    -SIZE[CFP]-SIZE[FA]) OF UNSPECIFIED,
  propBegin, propLength: BYTE,
  consecutive: BOOLEAN,
  blank: [0..177B],
  newSN: BYTE,
  dirFP: CFP,
  eofFA: FA];
```

-- D I S K D E S C R I P T O R

```
-- disk configuration
DISK: TYPE = MACHINE DEPENDENT RECORD [
  disks, tracks, heads, sectors: CARDINAL];
```

```
-- disk descriptor (diskKD)
KD: TYPE = MACHINE DEPENDENT RECORD [
  disk: DISK,
  lastSN: SN,
  changed: WORD,
  size: CARDINAL,
  versions: CARDINAL,
  freePages: CARDINAL, -- hint
  blank: ARRAY [0..6) OF UNSPECIFIED,
  table: ARRAY [0..0) OF WORD];
```

-- D I R E C T O R Y

```
-- file name lengths
FilenameChars: INTEGER = 39;
FilenameWords: INTEGER = 20;
```

```
-- hardwired locators
DirSN: CARDINAL = 100;
DirDA: vDA = vDA[1];
DirFP: FP = FP[SN[1,0,0,0,DirSN],DirDA];
```

```
-- directory entry types
DEfree: INTEGER = 0;
DEfile: INTEGER = 1;
DElast: INTEGER = 77B;
```

```
-- directory entry (sans name)
DV: TYPE = MACHINE DEPENDENT RECORD[
  type: [DEfree..DElast],
  length: [0..1777B],
  fp: CFP];
```

END.