-- BcdDefs.Mesa Edited by Johnsson on August 29, 1977 5:34 PM

```
DIRECTORY
  AltoDefs: FROM "altodefs",
  BcdTableDefs: FROM "bcdtabledefs",
  ControlDefs: FROM "controldefs",
  TimeDefs: FROM "timedefs";

BcdDefs: DEFINITIONS =
  BEGIN

  TableLimit: CARDINAL = BcdTableDefs.TableLimit;

  VersionStamp: TYPE = RECORD [
    zapped: BOOLEAN,
    net: [0..128),
    host: AltoDefs.BYTE,
    time: TimeDefs.PackedTime];

  -- BCD Header

  VersionID: CARDINAL = 08267;

  BCD: TYPE = RECORD [
    versionident: CARDINAL,
    version: VersionStamp,
    creator: VersionStamp,
    nPages: AltoDefs.PageCount,
    nConfigs, nModules: CARDINAL,
    nImports, nExports: CARDINAL,
    definitions: BOOLEAN,
    firstdummy: GFTIndex,
    nDummies: CARDINAL,
    ssOffset: CARDINAL,          -- string table
    ssLimit: CARDINAL,
    ctOffset: CARDINAL,          -- config table
    ctLimit: CTIndex,
    mtOffset: CARDINAL,          -- module table
    mtLimit: MTIndex,
    impOffset: CARDINAL,         -- import table
    impLimit: IMPIndex,
    expOffset: CARDINAL,         -- export table
    expLimit: EXPIndex,
    ftOffset: CARDINAL,          -- file table
    ftLimit: FTIndex,
    ntOffset: CARDINAL,          -- name table
    ntLimit: NTIndex,
    source: NameRecord];


  -- Portable Type

  Portable: TYPE = {module, interface};


  -- Name Table

  NameRecord: TYPE = RECORD [offset, length: CARDINAL];

  NTRecord: TYPE = RECORD [
    name: NameRecord,
    item: Namee];

  Namee: TYPE = RECORD [
    SELECT type:* FROM
      config => [cti: CTIndex],
      module => [mti: MTIndex],
      import => [impi: IMPIndex],
      export => [expi: EXPIndex],
      ENDCASE];

  NTNull: NTIndex = LAST[NTIndex];
  NTIndex: TYPE = POINTER [0..TableLimit) TO NTRecord;


  -- Configuration Table
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CTRecord: TYPE = RECORD [
  name: NameRecord,
  namedinstance: BOOLEAN,
  file: FTIndex,
  config: CTIndex,
  control: MTIndex];

CTNull: CTIndex = LAST[CTIndex];
CTIndex: TYPE = POINTER [0..TableLimit) TO CTRecord;


-- Module Table

MTRecord: TYPE = RECORD [
  name: NameRecord,
  namedinstance: BOOLEAN,
  file: FTIndex,
  config: CTIndex,
  cseg, sseg: SegDesc,
  framesize: [0..4096),
  fsi: [0..ControlDefs.maxallocslot],
  gfi: GFTIndex,
  ngfi: [1..4],
  frame: FrameFrag];

FrameFrag: TYPE = RECORD [
  offset, length: CARDINAL,
  frag: ARRAY [0..1) OF ControlLink];

MTNull: MTIndex = LAST[MTIndex];
MTIndex: TYPE = POINTER [0..TableLimit) TO MTRecord;


-- Import Table

IMPRecord: TYPE = RECORD [
  name: NameRecord,
  port: Portable,
  namedinstance: BOOLEAN,
  file: FTIndex,
  gfi: GFTIndex,
  ngfi: [1..4]];

IMPNull: IMPIndex = LAST[IMPIndex];
IMPIndex: TYPE = POINTER [0..TableLimit) TO IMPRecord;


-- Export Table

EXPRecord: TYPE = RECORD [
  name: NameRecord,
  size: CARDINAL,
  port: Portable,
  namedinstance: BOOLEAN,
  file: FTIndex,
  links: ARRAY [0..1) OF ControlLink];

EXPNull: EXPIndex = LAST[EXPIndex];
EXPIndex: TYPE = POINTER [0..TableLimit) TO EXPRecord;


-- File Table

SegDesc: TYPE = RECORD [
  file: FTIndex,
  base: AltoDefs.PageNumber,
  pages, extraPages: [0..256)];

FTRecord: TYPE = RECORD [
  name: NameRecord,
  version: VersionStamp];

FTNull: FTIndex = LAST[FTIndex];
FTSelf: FTIndex = LAST[FTIndex]-1;
FTIndex: TYPE = POINTER [0..TableLimit) TO FTRecord;
```

```
-- Dummy Control Link

ControlLinkTag: TYPE = {frame, procedure, indirect, unbound};

GFTIndex: TYPE = [0..777B];
GFTNull: GFTIndex = LAST[GFTIndex];

EPIndex: TYPE = [0..37B];
EPLimit: CARDINAL = LAST[EPIndex]+1;

ControlLink: TYPE = MACHINE DEPENDENT RECORD [
  gfi: GFTIndex,
  ep: EPIndex,
  tag: ControlLinkTag];

NullLink: ControlLink = [0,0,frame];
UnboundLink: ControlLink = [0,0,unbound];

END.
```