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-- DebugBreakptDefs.Mesa
-- Edited by:
--           Sandman on May 2, 1978  5:18 PM
--           Barbara on July 13, 1978 11:28 AM
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DIRECTORY

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AltoDefs: FROM "altodefs" USING [BYTE],
BcdDefs: FROM "bcddefs" USING [SGIndex],
ControlDefs: FROM "controldefs" USING [BytePC, GlobalFrameHandle],
CoreSwapDefs: FROM "coreswapdefs" USING [SVPointer],
LoadStateDefs: FROM "loadstatedefs" USING [ConfigIndex],
SymbolTableDefs: FROM "symboltabledefs" USING [SymbolTableBase],
SymDefs: FROM "symdefs" USING [BTIndex, FGTEEntry];
```

DEFINITIONS FROM ControlDefs;

DebugBreakptDefs: DEFINITIONS =

BEGIN

```
BreakBlock: TYPE = RECORD [
  chain: BBPointer,      -- link to other blocks
  faddr: GlobalFrameHandle,
  code: CodeObject,
  condition: STRING,
  pc: BytePC,           -- relative pc
  brkinst: AltoDefs.BYTE, -- old inst
  exo: EXOIttype,
  bt: BTtype];
```

```
CodeObject: TYPE = RECORD [
  config: LoadStateDefs.ConfigIndex,
  seg: BcdDefs.SGIndex];
```

```
BTtype: TYPE = {break, trace};
EXOIttype: TYPE = {entry, exit, octal, in};
GCtype: TYPE = {prog, proc};
SCtype: TYPE = {set, clear};
BBPointer: TYPE = POINTER TO BreakBlock;
BreakError: TYPE = {notFound, notAllowed, noReturn, noBreaksSet, noTracesSet,
  badCondition, tooManyConditions, noSym};
```

```
BodyEntryPc: PROCEDURE [frame: GlobalFrameHandle, e: CARDINAL, noSym: BOOLEAN]
  RETURNS [pc: BytePC];
BodyExitPc: PROCEDURE [frame: GlobalFrameHandle, e: CARDINAL]
  RETURNS [pc: BytePC];
Break: PROCEDURE [sp: CoreSwapDefs.SVPointer];
BreakInstToState: PROCEDURE [sp: CoreSwapDefs.SVPointer, b: AltoDefs.BYTE];
BreakPoint: PROCEDURE [body, condition: STRING, bt: BTtype, sc: SCtype,
  ex: EXOIttype];
BreakPointError: SIGNAL [error: BreakError];
ClearAllBT: PROCEDURE [bt: BTtype];
ClearBreakBlocks: PROCEDURE;
ClearTextBreakPoint: PROCEDURE [body, source: STRING, gc: GCtype];
CodeToSourceIndex: PROCEDURE [frame: GlobalFrameHandle, pc: BytePC]
  RETURNS [index: CARDINAL];
DeleteBreaks: PROCEDURE;
EntryToBTI: PROCEDURE [sbase: SymbolTableDefs.SymbolTableBase,
  e: CARDINAL] RETURNS [SymDefs.BTIndex];
FindBPRec: PROCEDURE [frame: GlobalFrameHandle, pc: BytePC]
  RETURNS [p: BBPointer];
FindSegBPRec: PROCEDURE [frame: GlobalFrameHandle, pc: BytePC]
  RETURNS [p: BBPointer];
InsertBreak: PROCEDURE [frame: GlobalFrameHandle, pc: BytePC, e: EXOIttype,
  b: BTtype, condition: STRING];
ListAll: PROCEDURE [bt: BTtype];
OctalBreakPoint: PROCEDURE [frame: GlobalFrameHandle, pc: BytePC, sc: SCtype];
PrintLocation: PROCEDURE [
  frame: GlobalFrameHandle, index: CARDINAL, scroll: BOOLEAN];
RemoveBreak: PROCEDURE [frame: GlobalFrameHandle, pc: BytePC];
RestoreBreaks: PROCEDURE;
StringToFGTEEntry: PROCEDURE [
  frame: GlobalFrameHandle, entryindex: CARDINAL, s: STRING]
  RETURNS [fgte: SymDefs.FGTEEntry];
TextBreakPoint: PROCEDURE [
  body, source, condition: STRING, bt: BTtype, gc: GCtype];
```