

```
-- file code.mesa
-- last modified by Sweet, May 10, 1978 12:42 PM
```

#### DIRECTORY

```
CodeDefs: FROM "codedefs" USING [Address, Calls, CCIndex, Driver, DriverNotify, Expression, Final, Flow,
FlowExpression, Jumps, LabelCCIndex, Lexeme, OutCode, PeepholeQ, PeepholeU, PeepholeZ, Stack, Statement, Store],
CompilerDefs: FROM "compilerdefs" USING [MakeSwappable],
OpTableDefs: FROM "optabledefs" USING [OpTable],
P5ADefs: FROM "p5adefs" USING [Cmodule],
SymDefs: FROM "symdefs" USING [ByteIndex, ContextLevel, CTXIndex, ISEIndex, recordCSEIndex],
TableDefs: FROM "tabledefs" USING [AddNotify, DropNotify],
TreeDefs: FROM "treedefs";
```

#### DEFINITIONS FROM CodeDefs;

#### Code: PROGRAM

```
IMPORTS CodeDefs, CompilerDefs, OpTableDefs, P5ADefs, TableDefs
EXPORTS CompilerDefs, P5ADefs =
PUBLIC BEGIN
```

```
-- the following variables are shared among the code generation modules
```

```
curctxlvl: SymDefs.ContextLevel;
codeptr: CCIndex;
curbodyretlabel: LabelCCIndex;
mainBody: BOOLEAN;
ZEROLEXEME: word literal Lexeme;
acstack: INTEGER;
stking: BOOLEAN;
firstcaseselread: BOOLEAN;
mwcaseselrtlex: se Lexeme;
fileindex: SymDefs.ByteIndex;
catchcount: CARDINAL;
catchoutrecord: SymDefs.recordCSEIndex;
tempcontext: SymDefs.CTXIndex;
tempstart, framesz, cfs: CARDINAL;
actenable: LabelCCIndex;
xtracting: BOOLEAN;
xtractlex: Lexeme;
xtractsei: SymDefs.ISEIndex;
```

```
ACStackOverflow: SIGNAL = CODE;
ACStackUnderflow: SIGNAL = CODE;
StackNotEmptyAtStatement: SIGNAL = CODE;
CodeNotImplemented: SIGNAL = CODE;
DeletingUnreachableCode: SIGNAL = CODE;
CodePassInconsistency: SIGNAL = CODE;
CodePassError: ERROR [n: CARDINAL] = CODE;
```

#### P5module: PROCEDURE =

```
BEGIN -- starts the code generation pass
TableDefs.AddNotify[CodeDefs.DriverNotify];
P5ADefs.Cmodule[];
TableDefs.DropNotify[CodeDefs.DriverNotify]; RETURN
END;
```

#### P5Error: PROCEDURE [n: CARDINAL] =

```
BEGIN
ERROR CodePassError[n]
END;
```

#### BEGIN OPEN CompilerDefs;

```
MakeSwappable[OpTableDefs.OpTable, pass5];
MakeSwappable[Driver, pass5];
MakeSwappable[Address, pass5];
MakeSwappable[Stack, pass5];
MakeSwappable[Flow, pass5];
MakeSwappable[Store, pass5];
MakeSwappable[Expression, pass5];
MakeSwappable[FlowExpression, pass5];
MakeSwappable[Statement, pass5];
MakeSwappable[Calls, pass5];
```

```
MakeSwappable[OutCode, pass5];  
MakeSwappable[PeepholeQ, pass5];  
MakeSwappable[PeepholeU, pass5];  
MakeSwappable[PeepholeZ, pass5];  
MakeSwappable[Jumps, pass5];  
MakeSwappable[Final, pass5];  
END;
```

```
END...
```