

```
-- file LitDefs.Mesa
-- last modified by Satterthwaite, March 20, 1978 5:21 PM
```

DIRECTORY

```
AltoDefs: FROM "altodefs",
StringDefs: FROM "stringdefs",
TableDefs: FROM "tabledefs";
```

```
LitDefs: DEFINITIONS =
BEGIN
```

```
-- table allocation codes
```

```
ltype: TableDefs.TableSelector = 7;
stype: TableDefs.TableSelector = 8;
```

```
-- data structures
```

```
LitTabInit, LitTabErase: PROCEDURE;
```

```
LitRecord: TYPE = RECORD [
  SELECT litTag: * FROM
    word => [index: LTIndex],
    string => [index: STIndex],
  ENDCASE];
```

```
-- literal constants
```

```
WordSequence: TYPE = ARRAY [0..0) OF WORD;
```

```
LTRecord: PRIVATE TYPE = RECORD [
  link: LTIndex,
  datum: SELECT kind: * FROM
    short => [value: WORD],
    long => [
      codeIndex: [0..AltoDefs.VMLimit/2],
      length: CARDINAL,
      value: WordSequence],
  ENDCASE];
```

```
LTIndex: TYPE = POINTER [0..TableDefs.TableLimit/2) TO LTRecord;
LTNull: PRIVATE LTIndex = LAST[LTIndex];
```

```
LiteralId: TYPE = RECORD [baseP: TableDefs.TableFinger, index: LTIndex];
```

```
LitDescriptor: TYPE = RECORD[
  offset: POINTER [0..AltoDefs.VMLimit) TO WordSequence,
  length: CARDINAL];
```

```
-- procedural interface
```

```
CopyLiteral: PROCEDURE [LiteralId] RETURNS [LTIndex];
FindLitDescriptor: PROCEDURE [DESCRIPTOR FOR ARRAY OF WORD] RETURNS [LTIndex];
FindLiteral: PROCEDURE [WORD] RETURNS [LTIndex];
ForgetLiterals: PROCEDURE RETURNS [currentSize: CARDINAL];
LitDescriptorValue: PROCEDURE [LTIndex] RETURNS [LitDescriptor];
LiteralValue: PROCEDURE [LTIndex] RETURNS [WORD];
```

```
-- string literals
```

```
STRecord: PRIVATE TYPE = RECORD [
  SELECT kind: * FROM
    master => [
      link: MSTIndex,
      local: BOOLEAN,
      info: CARDINAL,
      codeIndex: CARDINAL,
      string: StringBody],
    -- the actual string text follows here
    copy => [
      mark: BOOLEAN,
      link: MSTIndex],
  ENDCASE];
```

```
SizeSTPrefix: PRIVATE CARDINAL = SIZE[master STRecord] - SIZE[StringBody];

STIndex: TYPE = POINTER [0..TableDefs.TableLimit/2) TO STRecord;
STNull: PRIVATE STIndex = LAST[STIndex];
MSTIndex: TYPE = POINTER [0..TableDefs.TableLimit/2) TO master STRecord;

-- procedural interface

EnumerateLocalStrings: PROCEDURE [STIndex, PROCEDURE [MSTIndex]];
EnumerateMasterStrings: PROCEDURE [PROCEDURE [MSTIndex]];
FindLocalStringLiteral: PROCEDURE [STIndex] RETURNS [STIndex];
FindStringLiteral: PROCEDURE [StringDefs.SubString] RETURNS [STIndex];
MasterString: PROCEDURE [sti: STIndex] RETURNS [MSTIndex];
ResetLocalStrings: PROCEDURE RETURNS [STIndex];
StringLiteralReference: PROCEDURE [STIndex];
StringLiteralValue: PROCEDURE [STIndex] RETURNS [STRING];

END.
```