Symbol: TYPE = [0..377B];
State: TYPE = CARDINAL;

AsstlEntry: TYPE = MACHINE DEPENDENT RECORD [
tlen: [0..377B], -- number of terminal entries
assocsym: Symbol]; -- associated symbol

ActionTag: TYPE = MACHINE DEPENDENT RECORD [
reduce: BOOLEAN, -- TRUE iff reduce entry
plength: [0..17B]]; -- number of symbols in production rhs

ActionEntry: TYPE = MACHINE DEPENDENT RECORD [
rtag: ActionTag, -- [FALSE,0] if a shift entry
transition: [0..3777B]]; -- production number / next state

ProductionInfo: TYPE = MACHINE DEPENDENT RECORD [
rule: [0..377B], -- reduction rule
lhs: Symbol]; -- production lhs symbol

VocabHashEntry: TYPE = MACHINE DEPENDENT RECORD [
symptr: [0..377B], -- symbol index
link: [0..377B]]; -- link to next entry

SymbolRecord: TYPE = RECORD [class: Symbol, value: UNSPECIFIED, index: CARDINAL]: -- token indices for the scanner
tokenID: Symbol = 1;
tokenSTR: Symbol = 2;

LALRTable: PUBLIC TYPE = PRIVATE MACHINE DEPENDENT RECORD [
scantable: RECORD[
hashtab: ARRAY [0..37] OF VocabHashEntry,
scantab: ARRAY CHARACTER [40C..177C] OF Symbol,
vocabbody: RECORD [ -- a string body
  length, maxlength: CARDINAL,
  text: ARRAY [0..49] OF UNSPECIFIED],
vocabindex: ARRAY [0..25] OF CARDINAL],
parsetable: RECORD[
proddata: ARRAY [0..43] OF ProductionInfo,
nstate: ARRAY [0..17] OF CARDINAL,
nlen: ARRAY [0..17] OF CARDINAL,
nsym: ARRAY [0..18] OF Symbol,
nact: ARRAY [0..18] OF ActionEntry,
tnulldata: ARRAY [0..23] OF ActionEntry,
ass1: ARRAY [0..55] OF AsstlEntry,
tsym: ARRAY [0..74] OF Symbol,
tact: ARRAY [0..74] OF ActionEntry]];

ScanInit: PROCEDURE [table: POINTER TO LALRTable];
Atom: PROCEDURE RETURNS [symbol: SymbolRecord];
ErrorContext: PROCEDURE [lexical: BOOLEAN];
Parse: PUBLIC PROCEDURE [table: POINTER TO LALRTable] RETURNS [complete, errors: BOOLEAN];
InputLoc: PROCEDURE RETURNS [CARDINAL];

AssignDescriptors: PROCEDURE [
qd: DESCRIPTOR FOR ARRAY OF ActionEntry,
v1d: DESCRIPTOR FOR ARRAY OF UNSPECIFIED,
ld: DESCRIPTOR FOR ARRAY OF CARDINAL]
pd: DESCRIPTOR FOR ARRAY OF ProductionInfo];
ProcessQueue: PROCEDURE [qptr, top: CARDINAL];
TokenValue: PROCEDURE [s: Symbol] RETURNS [UNSPECIFIED];
END.