

-- BcdLALRDefs.Mesa Edited by Wick on February 15, 1978 11:28 AM

BcdLALRDefs: DEFINITIONS = PRIVATE
BEGIN

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

Asst1Entry: 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, -- the token class
 value: UNSPECIFIED, --
 index: CARDINAL]; -- source line index

-- token indices for the scanner

tokenID: Symbol = 1;
tokenSTR: Symbol = 2;

-- output of the table generator

hashval: CARDINAL = 37;

endmarker: Symbol = 25;
lastntstate: State = 17;

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,
 ntdefaults: ARRAY [0.. 23] OF ActionEntry,
 asst1: ARRAY [0.. 55] OF Asst1Entry,
 tstate: ARRAY [0.. 55] OF CARDINAL,
 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,
 vd: DESCRIPTOR FOR ARRAY OF UNSPECIFIED,
 ld: DESCRIPTOR FOR ARRAY OF CARDINAL,

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