Grammar F17 Rules

Program	=>	**program** [DeclList] [FuncList] **begin** [StmtList] **end .**
DeclList	=>	Decl {Decl}
Decl	=>	Type VarList **;**
FuncList	=>	Func {Func}
Func	=>	**function** Ident **(** [ParamList] **) :** Type **;** [DeclList] **begin** [StmtList] **end**
ParamList	=>	Param { **,** Param}
Param	=>	Type Ident
Type	=>	**int** | **real** | **string**
VarList	=>	Ident { **,** Ident}
StmtList	=>	Stmt {Stmt}
Stmt	=>	Assign | Read | Write | If | While | Do | Return
Assign	=>	Ident **:=** Expr **;**
Read	=>	**read (** VarList **) ;**
Write	=>	**write (** Expr {**,** Expr} **) ;**

If	=>	**if (** Cond **) begin** StmtList **end**
		{ **elsif** (Cond) **begin** StmtList **end** }
		[**else** **begin** StmtList **end**]

While	=>	**while (** Cond **) begin** [StmtList] **end**
Do	=>	**do** [StmtList] **until (** Cond **) ;**
Return	=>	**return** Expr **;**
Cond	=>	Expr RelOp Expr
RelOp	=>	> | < | >= | <= | = | <>
Expr	=>	Term { (+|-) Term}
Term	=>	Factor { (*|/) Factor}
Factor	=>	Ident | IntConst | RealConst | StrConst | **(** Expr **)** | FuncCall
FuncCall	=>	Ident **(** [ArgList] **)**
ArgList	=>	Expr { **,** Expr}

Rules for Variables and Constants

Ident	=>	Alpha {Alpha|Digit|_}
Alpha	=>	character in range 'a'..'z' or 'A'..'Z'
Digit	=>	character in range '0'..'9'
IntConst	=>	Digit {Digit}
RealConst	=>	IntConst **.** IntConst
StrConst	=>	" {KybdChar} "
KybdChar	=>	any character typed into the source code file