

CILA

Language specification

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1 Grammar

integer	::=	<i>digit</i> integer <i>digit</i>
keyword	::=	if then else fi while do od div mod or and not
alfanum	::=	<i>letter</i> alfanum <i>letter</i> alfanum <i>digit</i>
ident	::=	alfanum (not in keyword)
<hr/>		
⟨program⟩	::=	⟨instruction⟩ ⟨program⟩; ⟨instruction⟩
⟨instruction⟩	::=	ident := ⟨arith_expr⟩ if ⟨logic_expr⟩ then ⟨program⟩ fi if ⟨logic_expr⟩ then ⟨program⟩ else ⟨program⟩ fi while ⟨logic_expr⟩ do ⟨program⟩ od
<hr/>		
⟨logic_expr⟩	::=	⟨logic_summand⟩ ⟨logic_expr⟩ or ⟨logic_summand⟩
⟨logic_summand⟩	::=	⟨logic_multiplicand⟩ ⟨logic_summand⟩ and ⟨logic_multiplicand⟩
⟨logic_multiplicand⟩	::=	⟨rel_expr⟩ not ⟨logic_multiplicand⟩
⟨rel_expr⟩	::=	⟨arith_expr⟩ ⟨rel_op⟩ ⟨arith_expr⟩ (⟨logic_expr⟩)
⟨rel_op⟩	::=	= < > <= >= <>
<hr/>		
⟨arith_expr⟩	::=	⟨arith_summand⟩ ⟨arith_expr⟩ ⟨summ_op⟩ ⟨arith_summand⟩
⟨arith_summand⟩	::=	⟨arith_multiplicand⟩ ⟨arith_summand⟩ ⟨mult_op⟩ ⟨arith_multiplicand⟩
⟨arith_multiplicand⟩	::=	⟨simple_expr⟩ ⟨simple_expr⟩ ^ ⟨arith_multiplicand⟩
⟨simple_expr⟩	::=	(⟨arith_expr⟩) integer ident
⟨summ_op⟩	::=	+ -
⟨mult_op⟩	::=	* div mod