

KARL-3 grammar (1)		...list ::= ...element // ;	value ::=
Basic Rules	rangespec ::= [[range [; range]]]	range ::= constval [- constval]	constvalue ::=
	Iden ::= { \$ letter } [[{ \$ letter digit }]]		{ " " [0] } { " " [1] } { " " [*] } { " " [?] } " " [octal_digit] " " [decimal_digit] " # " [hexadec_digit]
		exceeding characters are listed, however, not parsed	

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Declaration Part	
cell parlist } ::= ({ front right back left } ({ in out bi } ({ Iden expr ¹ } // ;) ⁺ rangespec ;) ⁺) ⁺	
body ::= { external decl_part begin [statement_part] end }	1) after 'in' in actpar only
func Iden rangespec ([funcparlist]) ; body { ; }	scope of variables : only locally within current cell or function module
clock (Iden [[decim_no ; range]] ;) ⁺	
((Iden // ;) ⁺ rangespec ;) ⁺	
delayer Iden rangespec by decim_no [to decim_no] ;	
constant (Iden rangespec '=' (constval // ;) ⁺ ;) ⁺	
terminal dest_node '=' IdenRam [addr] ..	Memory connect:
wile WrEnable do IdenRam [addr] '=' Inp endwhile	terminal dest '=' IdenRam.

Statement Part: connections
{ terminal light delay } (Iden '=' expr ;) ⁺
bus (Iden [subscript] '=' ({ oeo oco } expr // ;) ⁺ ;) ⁺
subscript ::= [[[{ expr range }] ;] { expr range }]

Register Statements
if expr then statemt_list [else statemt_list] endif
assignmt_list ::= (Iden [[expr]] '=' expr // ;) ⁺ { [at on] expr do assignmt_list { endat endon } ; } wile expr do (assignmt [otherwise { [at on] expr take expr ; }]) ⁺ endwhile
case expr of (valuelist ':' statemt_list) ⁺ [else statemt_list] endcase

instantKARL3dec1Gr4p.V.Mai85

SCIL I/O commands
endsim terminate simulation run
return ret jump to KARL system dialogue mode
print: print name current value printed together with name pmtact print only values which changed at last step execution printrtc print RTcode description pmtunit see printrtc, however, also most recent values shown sense (name value // ;) ⁺ ::::: if unequal print "sense error", name, values
plot: plotall (name ' ([bitnr [.. bitnr] // ;) ⁺ ') ' size // ;) ⁺ plot-like print of all specified bit values, repeated after each step plotnew see plotall, however, plot suppressed where values are unchanged endplot all plotting terminated so far
files: stdin, stdout simulator input, output, resp. switched over to terminal newin, newout enter dialogue mode to assign new file for input or output oldin, oldout switch back to input or output used before newin or newout
miscellaneous: settime start counting CPU time having been used gettime print CPU time used after settime execution help dump command interpreter state
comments: comment " " text string " " blank inserted in SCIL listing write ::::: see comment, however: inserted in simulator output

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