Syntax of P^+

Roger Burtonpatel

November 24, 2023

1 Syntax

Program	⟨*prog*⟩	::=	{⟨*def*⟩}
Definitions	⟨*def*⟩	::=	`(val` ⟨*name*⟩ ⟨*exp*⟩`)`
Expressions	⟨*exp*⟩	::=	⟨*name*⟩
		|	⟨*case*⟩
		|	⟨*K*⟩ {⟨*exp*⟩}
		|	⟨*exp*⟩ ⟨*exp*⟩
Case Expressions	⟨*case*⟩	::=	`(case` ⟨*exp*⟩ { ⟨*case-branch*⟩ } `)`
	⟨*case-branch*⟩	::=	`(`⟨*pattern*⟩ ⟨*exp*⟩ `)`
	⟨*pattern*⟩	::=	⟨*name*⟩
		|	⟨*K*⟩
		|	`(`⟨*K*⟩ {⟨*pattern*⟩}`)`
		|	`(`⟨*pattern*⟩ `when` ⟨*exp*⟩ `)`
Value Constructors	⟨*K*⟩	::=	`::`
		|	`[]`
		|	token beginning with a capital letter or a colon
		|	⟨*i*⟩
	⟨*i*⟩	::=	token composed only of digits, possibly prefixed with a `+` or `-`.

A ⟨*name*⟩ is any token that is not an ⟨*integer-literal*⟩, does not contain whitespace, a bracket, or parenthesis, and is not a ⟨*K*⟩ or a reserved word.

Would like help cleaning up the format on this.