APPENDIX C: VARIABLE ANALYSIS EQUATION NOTATION

The family of Analyses (Transient, AC, DC Sweep, etc…) all have a common notation for creating expressions composed of variables.

Symbol	Description
+	Add
-	Subtract
*	Multiply
/	Divide
^	Exponential
exp(x)	e^x
abs(x)	|x|
sqrt(x)	Square root of x
pwr(x,y)	x^y
sin(x)	Sine function of x
cos(x)	Cosine function of x
tan(x)	Tangent function of x
pi	Math constant π
e	Math constant e
real(x)	Real component of x
imag(x)	Imaginary component of x
V(x)	Voltage at node x
I(vx)	Current into + terminal of arbitrary voltage source Vx

A few example equations in translated into Variable Analysis notation…

Equation	In Variable Analysis notation
$V(3) - V(2)$	V(3) –V(2)
$V(5)*$	(real(V(5)),-imag(V(5)))
$\|V(3) \cdot I(v3)\|$	Abs(V(3)*I(v3))