For graph

ASTNode (abstract)

Emit() (virtual method)

(since there is no implementation, should we make this an interface?)

StatementNode

(nothing)?

SequenceNode

:SequenceNode left

:StatementNode right

LabelDec

:ID (leaf node)

:NodeDec

NodeDec

:ID (leaf node)

ArcDec

:ID1

:ID2

:list of attributes

ListDec

:Type

:ID

:list of attributes

PrimativeDec

:pType

:ID

:pValue

Extends

Extends

ID

:String idname

AttributeListNode

:Attribute head

:AttributeListNode tail

Attribute

?

pValue

:int pValue

Type (abstract)

?

pType

:string type

subtype (or Type1)

:string type

:(connect to object)?

For Solver

Expression

Arithmetic

:Expression e1

:Expression e2

:String operator

Comparison

:Expression e1

:Expression e2

:String operator

Unary

:Expression e

:String operator

List access

:ID id

:Expression e

StatementNode (from graph)

IfNode

:Expression

:SequenceNode

WhileNode

:Expression

:SequenceNode