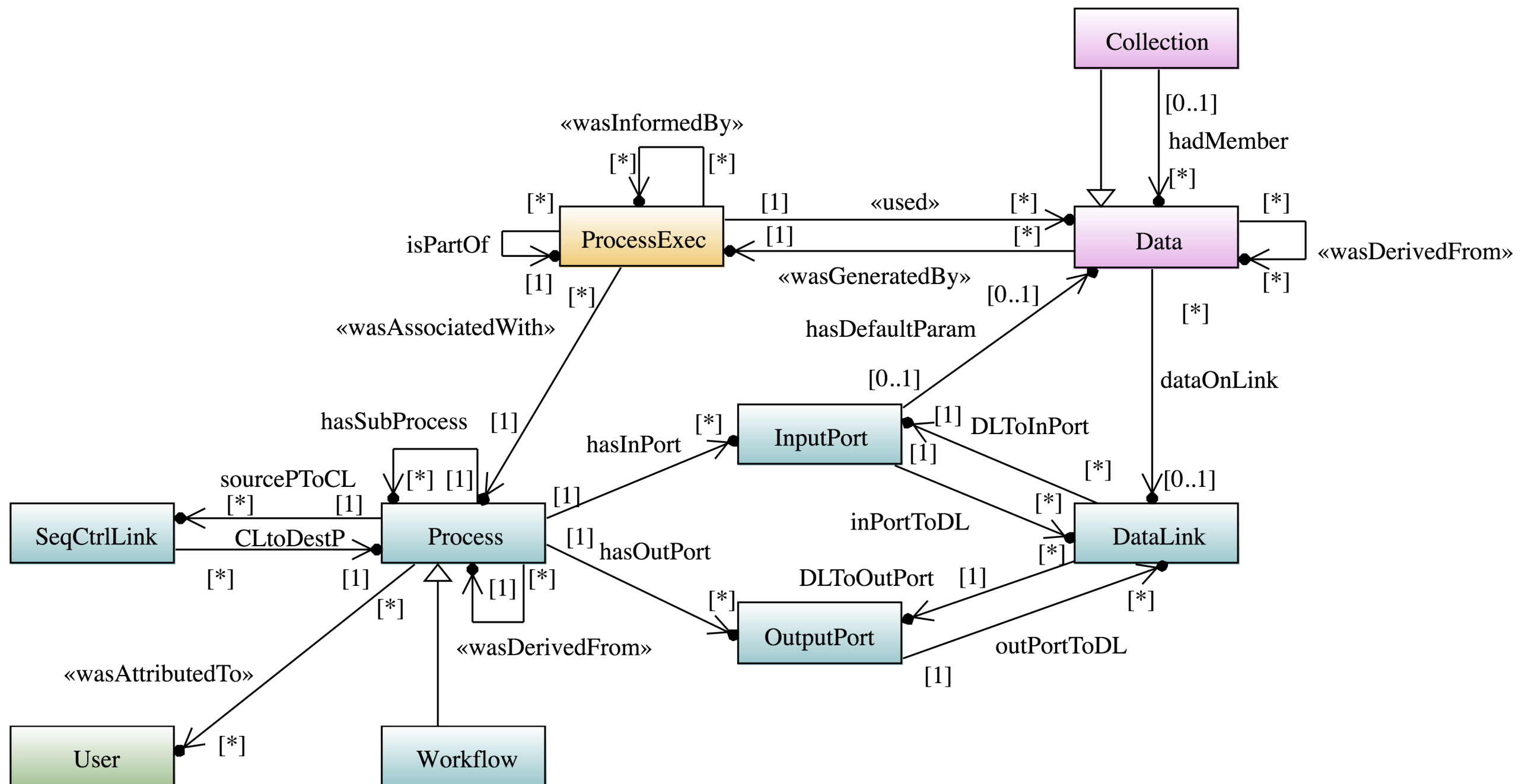


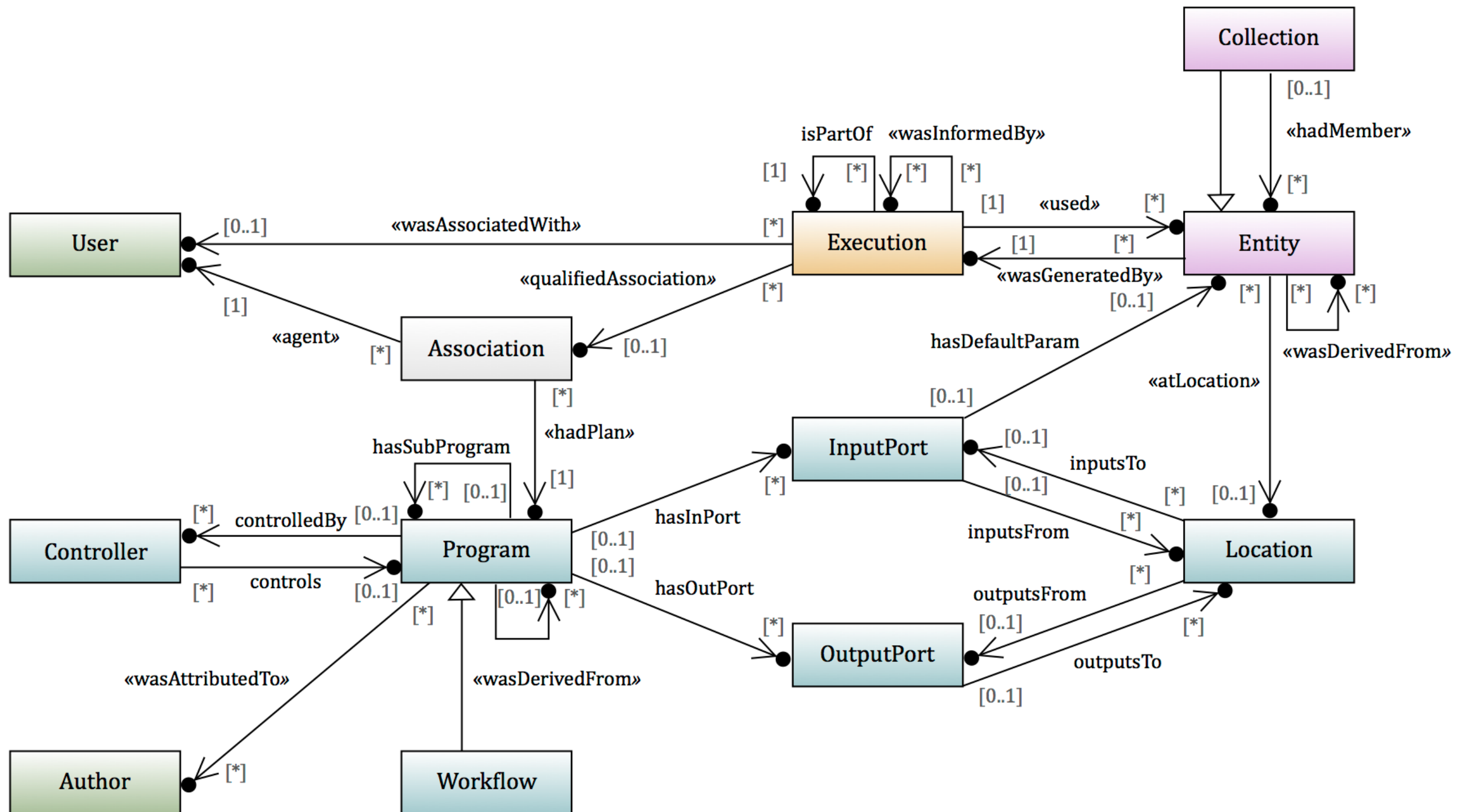
ProvONE

Proposed changes to the draft ProvONE model

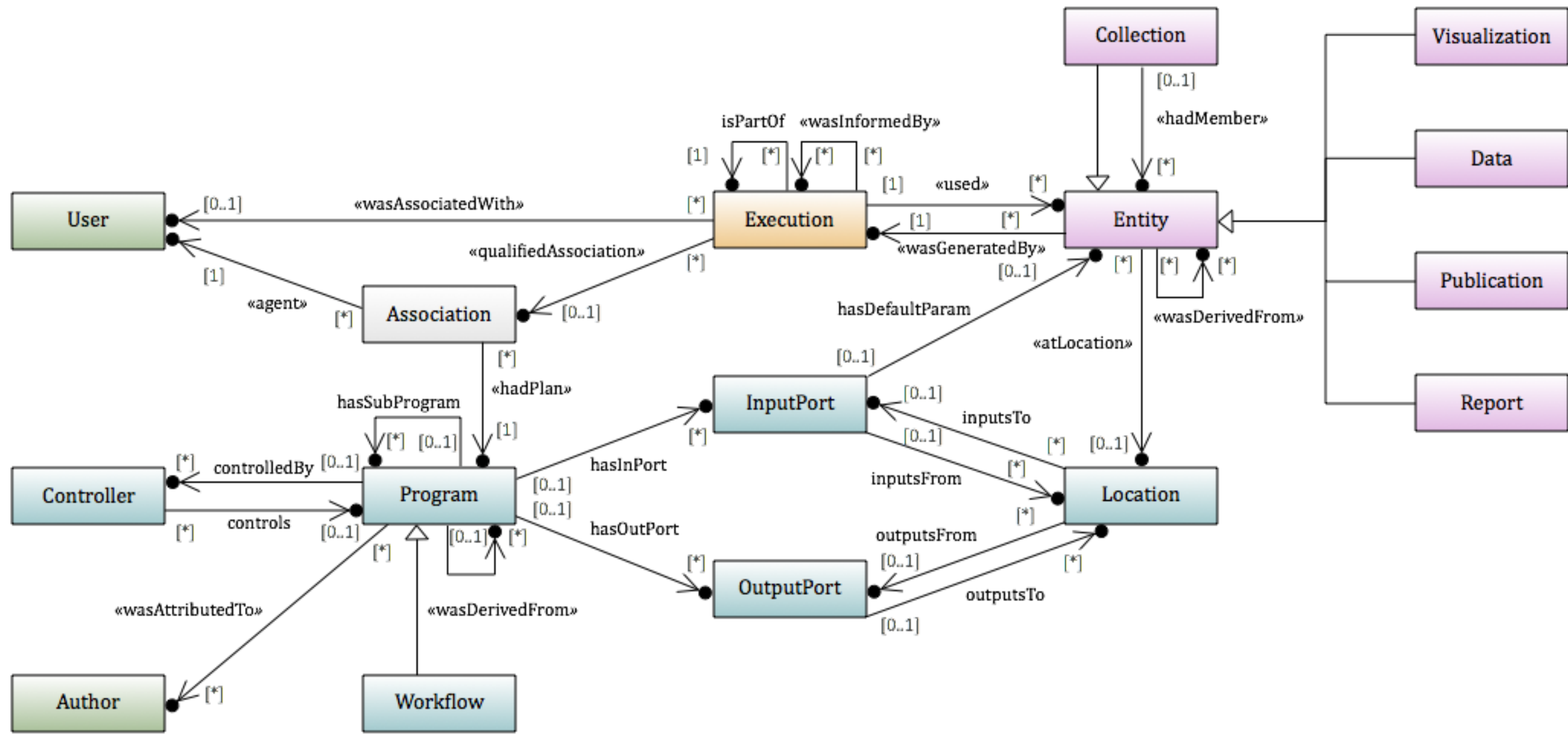
Original ProvONE model



Proposed ProvONE model



Proposed Entity extensions



Class Name Changes

Old	New	Reason
Process	Program	More recognizable by scientists
ProcessExec	Execution	More readable and recognizable
SeqCtrlLink	Controller	More readable, multiple types of controllers
DataLink	Location	More readable and recognizable, PROV class
Data	Entity	Enables finer subclassing

Added Classes

Class	Reason
Association	Needed to qualify the Program, the Execution, and User relationships
Author	Program (Workflow) Users may be different from Program Authors
Data	Subclass of Entity, differentiate from Visualization
Visualization	Subclass of Entity, differentiate from Data
Publication	Subclass of Entity, enables paper referrals
Report	Subclass of Entity, enables report referrals

Predicate Name Changes

Old	New	Reason
inPortToDL	inputsFrom	More readable
DLToInPort	inputsTo	More readable
outPortToDL	outputsTo	More readable
DLToOutPort	outputsFrom	More readable
dataOnLink	atLocation	More readable, PROV property
hasSubProcess	hasSubProgram	More recognizable
sourcePToCL	controlledBy	More readable
CLtoDestP	controls	More readable

Added Predicates

Class	Reason
qualifiedAssociation(Association, Execution)	Needed to qualify wasAssociatedWith
agent(User, Association)	Needed to qualify wasAssociatedWith
hadPlan(Program, Association)	Needed to qualify wasAssociatedWith
wasAssociatedWith(User, Execution)	Associates a user with an Execution
wasAttributedTo(Author, Program)	Attributes an Author with a Program

Cardinality Changes

Predicate	Old	New	Reason
inputsFrom	[1] —> [*]	[0..1] —> [*]	Enables optional Location
inputsTo	[1] —> [*]	[0..1] —> [*]	Enables optional InputPort
outputsFrom	[1] —> [*]	[0..1] —> [*]	Enables optional Location
outputsTo	[1] —> [*]	[0..1] —> [*]	Enables optional OutputPort
atLocation	[*] —> [1]	[*] —> [0..1]	Enables optional Location
hasSubProgram	[1] —> [*]	[0..1] —> [*]	Enables optional SubProgram
wasDerivedFrom	[1] —> [*]	[0..1] —> [*]	Enables optional Derivation
controlledBy	[1] —> [*]	[0..1] —> [*]	Enables optional Controller
controls	[1] —> [*]	[0..1] —> [*]	Enables optional Controller