Create a new Class

(cnum)

new: name, alias, subsys, domain,
[formalizing], [cnum], [id name], [id type]

Class

Non Specialized

(enum)
(cnum)

new subsystem element: subsys, domain
assign cnum: subsys, domain

[id num]

new: attr, class, domain

Subsystem Element

new: id name, id data type
class name, domain

Independent Attribute

Modeled Identifier

(id num)

new: attribute, class, domain, identifier

Identifier Attribute

new: name, class, domain, type

Native Attribute

new: class, domain

Identifier

next id num

new: attr name, class, domain

Attribute

Key

Color coded by subsystem

Class

Managed by attached class

Subclass

Association class

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New ID Attribute

👤
id num

↓ new: attr, class, domain, [id num]

Identifier Attribute

↓ 1: id attr added: ref type, from class, to class,rnum, domain, attr, id num

Reference

↓ new: from class, to attr, to class, to id, ref type, rnum, domain

Referential Attribute

↓ new: name, class, domain

Attribute

Key

Color coded by subsystem

Managed by attached class

Class

Subclass

Association class

Delete an Attribute

Remove from Identifier

delete: name, class, domain

Independent Attribute

delete: name, class, domain

Native Attribute

delete: name, class, domain

delete: name, class, domain

Attribute

delete: name, class, domain, identifier

delete: name, class, domain, identifier

Identifier Attribute

1: id attr removed: identifier, class, domain

delete: from attr, from class, ref type,
to class, rnum, domain

Identifier

Referential Role

Referential Attribute

1: ref role deleted: class, domain

reseq ids: class, domain
new default id: class, domain

Class

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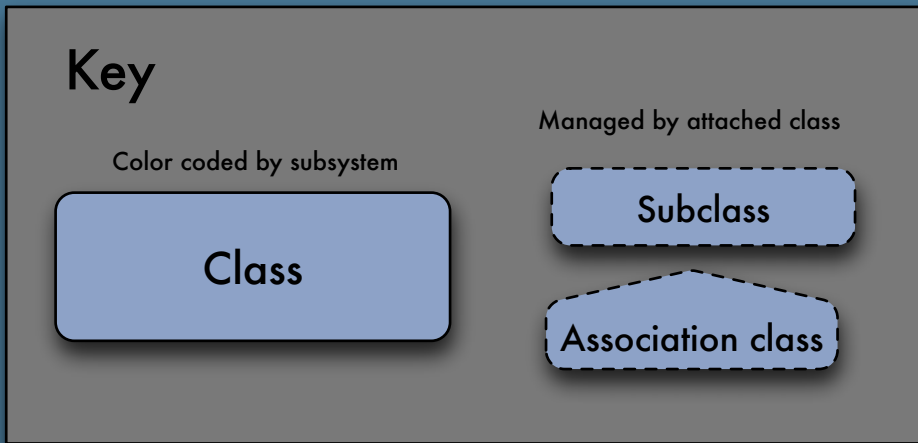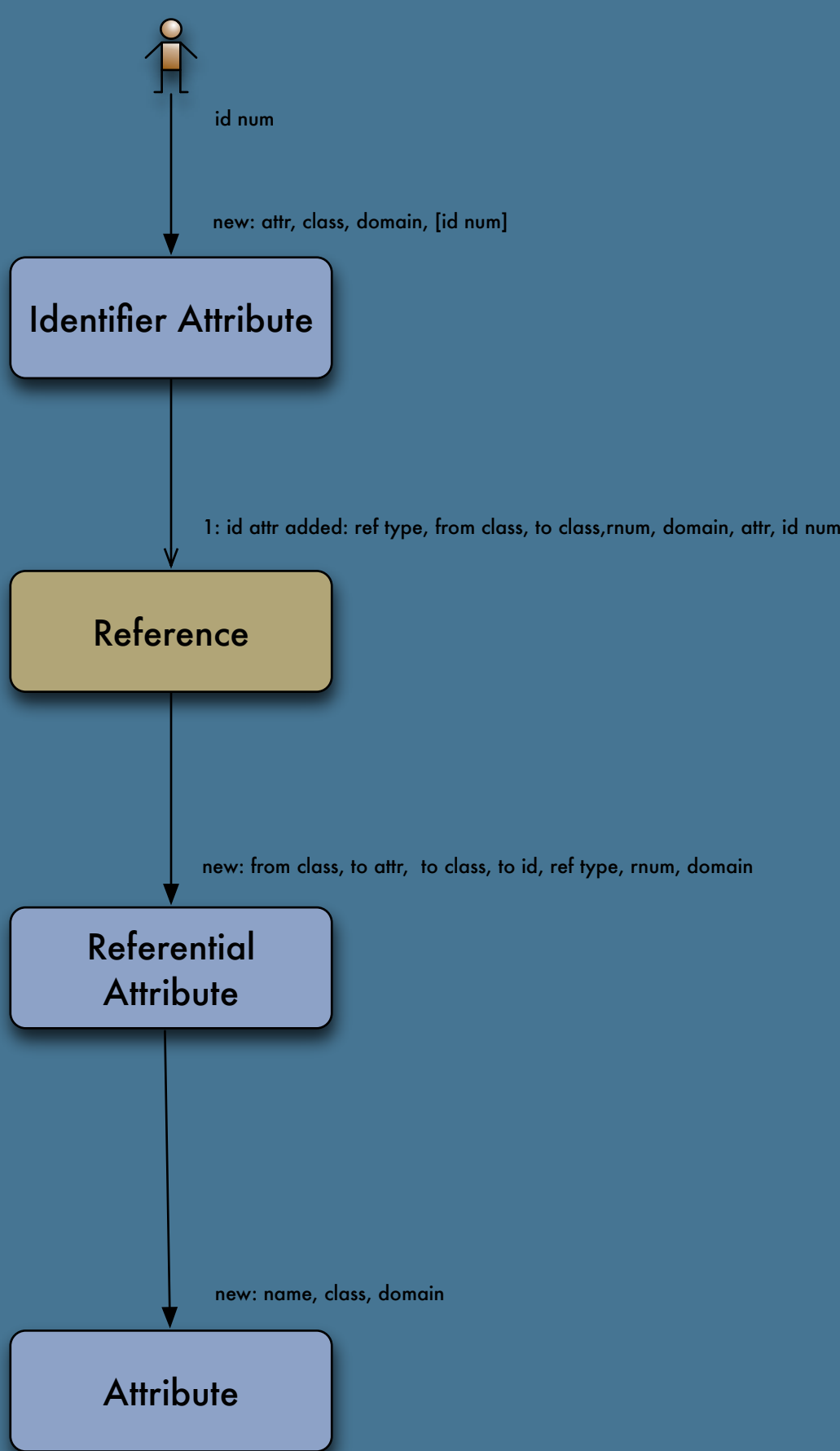(at your option) any later version. The license text should be viewable at
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Key

Color coded by subsystem

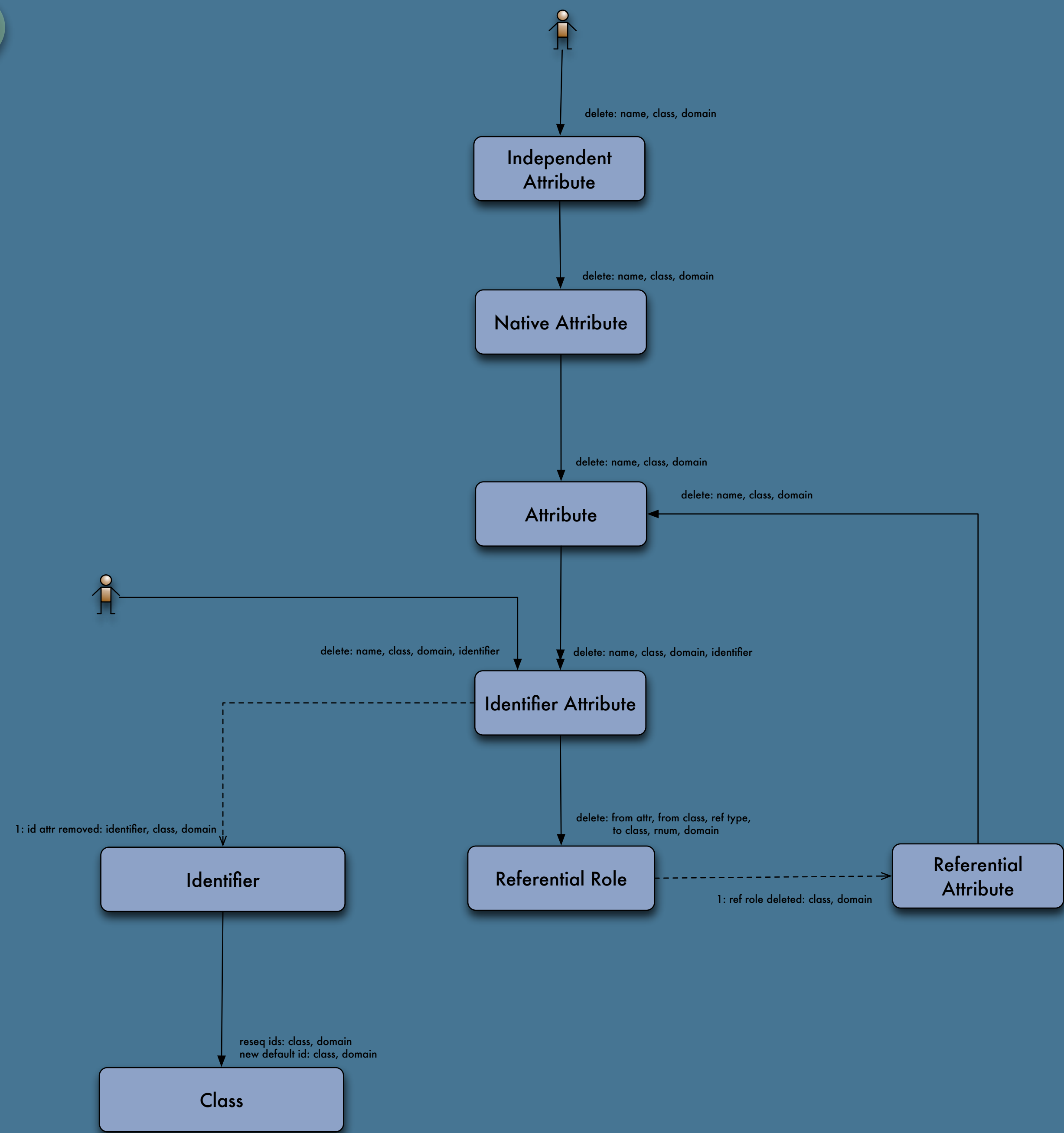Managed by attached class

Class

Subclass

Association class

Class Model Editing
Collaboration Diagrams
miUML Metamodel

Leon Starr
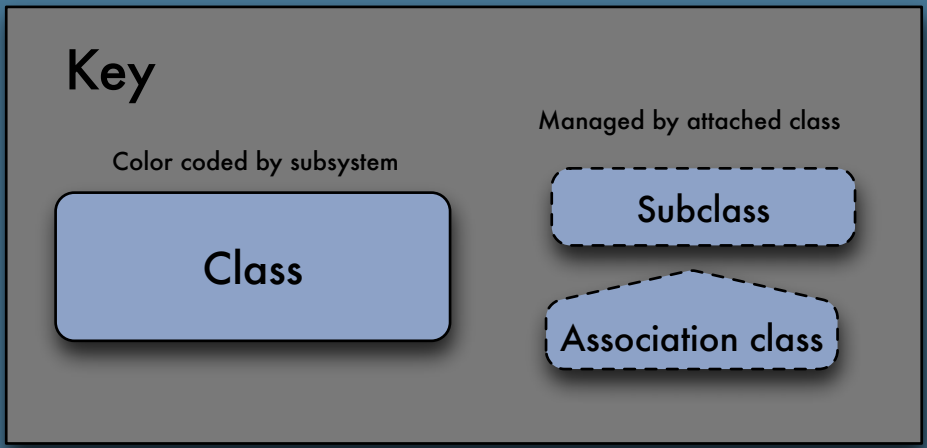August 29, 2011

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Version 1.0.0

Delete Relationship

Element ← delete: element, domain — Relationship

delete: rnum, domain

Relationship

- delete: ref type, from class, to class, rnum, domain → **Reference**
- **Formalizing Class**
- delete: rnum, domain → **Association**
- delete: rnum, domain → **Generalization**

Reference

delete: from attr, from class, ref type, to class, rnum, domain

Referential Role

1: ref role deleted: class, domain

Referential Attribute
- Native Attribute
- Independent Attribute

delete: name, class, domain

Attribute

Association

Perspective

Generalization

Generalization Role

migrate non specialized: class, domain

Class
- Non Specialized Class

Perspective

Key

Color coded by subsystem

Class

Managed by attached class

Subclass

Association class

New Binary Association w/Assoc Class

new: active class, passive class, subsys, domain,
rnum, formalizing persp,
active mult, active cond, active phrase,
passive mult, passive cond, passive phrase,
assoc class, assoc alias

Binary Association

(rnum)

new: subsys, domain, rnum

Association

(rnum)

new: subsys, domain, rnum

Relationship

(enum)
(rnum)

new subsystem element: subsys, domain
assign rnum: subsys, domain

Subsystem Element

new: rnum, class, domain
mult, cond, phrase, perspective

Perspective

One / Many   Asymmetric

Active / Passive

new: rnum, class, domain

Association Class

Reference Path   Formalizing Class

new: assoc class name, assoc class alias,
subsys, domain, <gen num>, <formal>

Class

Non Specialized

new: T/P ref type, side, refd mult, opp mult, rnum, domain
assoc class, part class

Associative Reference

Reference   T Ref   P Ref   Asymmetric   To One in 1x_1x

new: from attr, from class,
to attr, to class, to id,
ref type, rnum, domain

Referential Attribute

Referential Role

new: attr name, class, domain

Attribute

new: part class, assoc class,
domain, ref type, rnum

RR Assoc 1 ID

(id num)

new: ref_type, part class, assoc class,
rnum, domain

RR Assoc ID

(id num)

new: to class, from class, ref type,
rnum, domain

RR ID

(id num)

new: class, domain

Identifier

new: attribute, class, domain, identifier

Identifier Attribute

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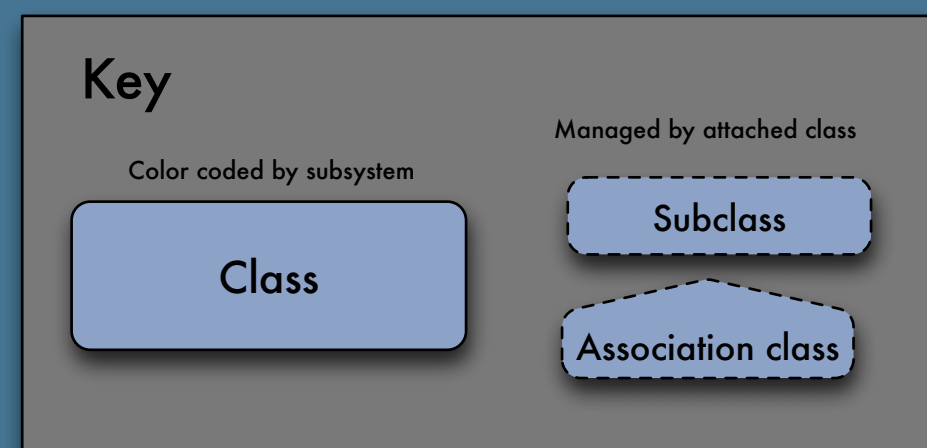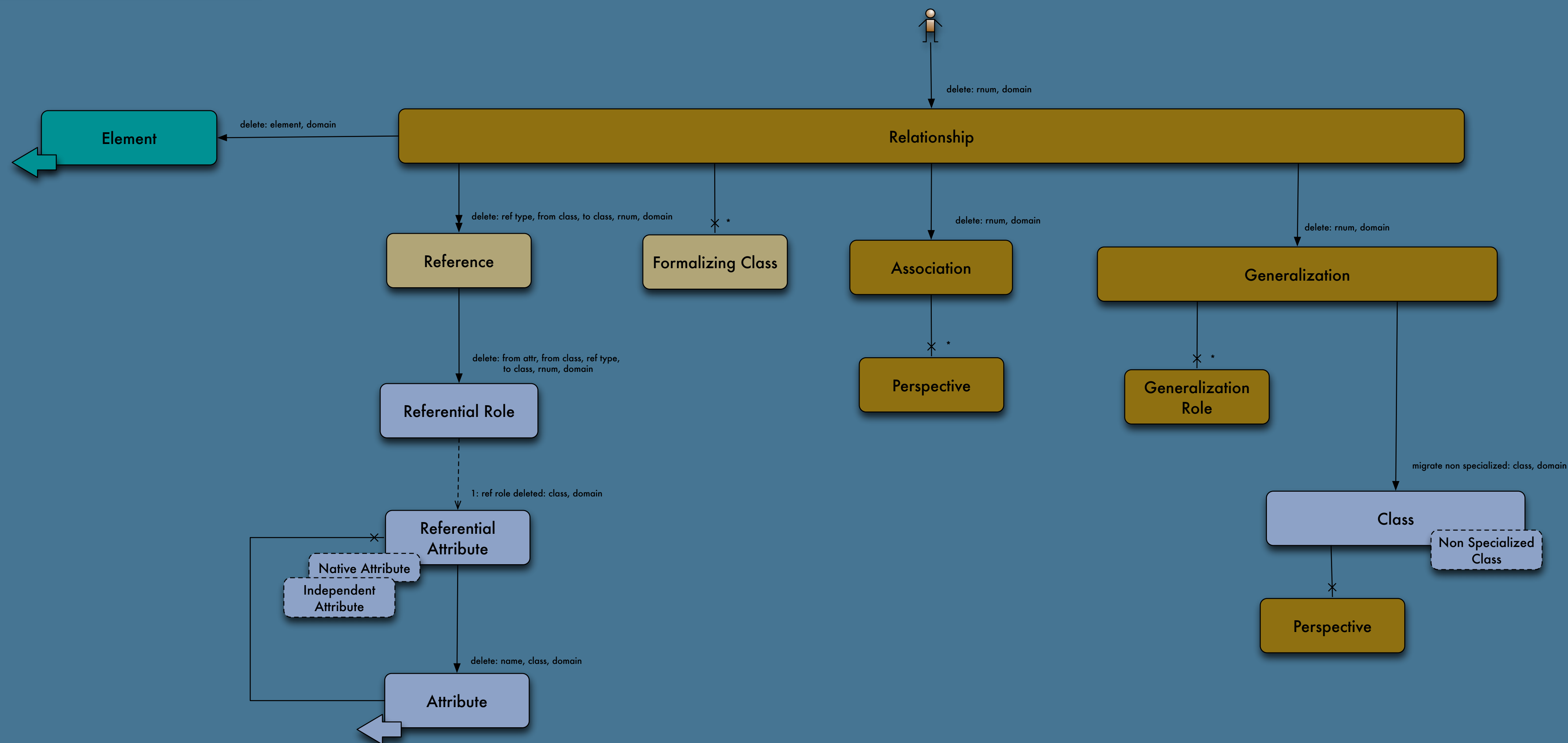http://www.gnu.org/licenses/

Key

Color coded by subsystem
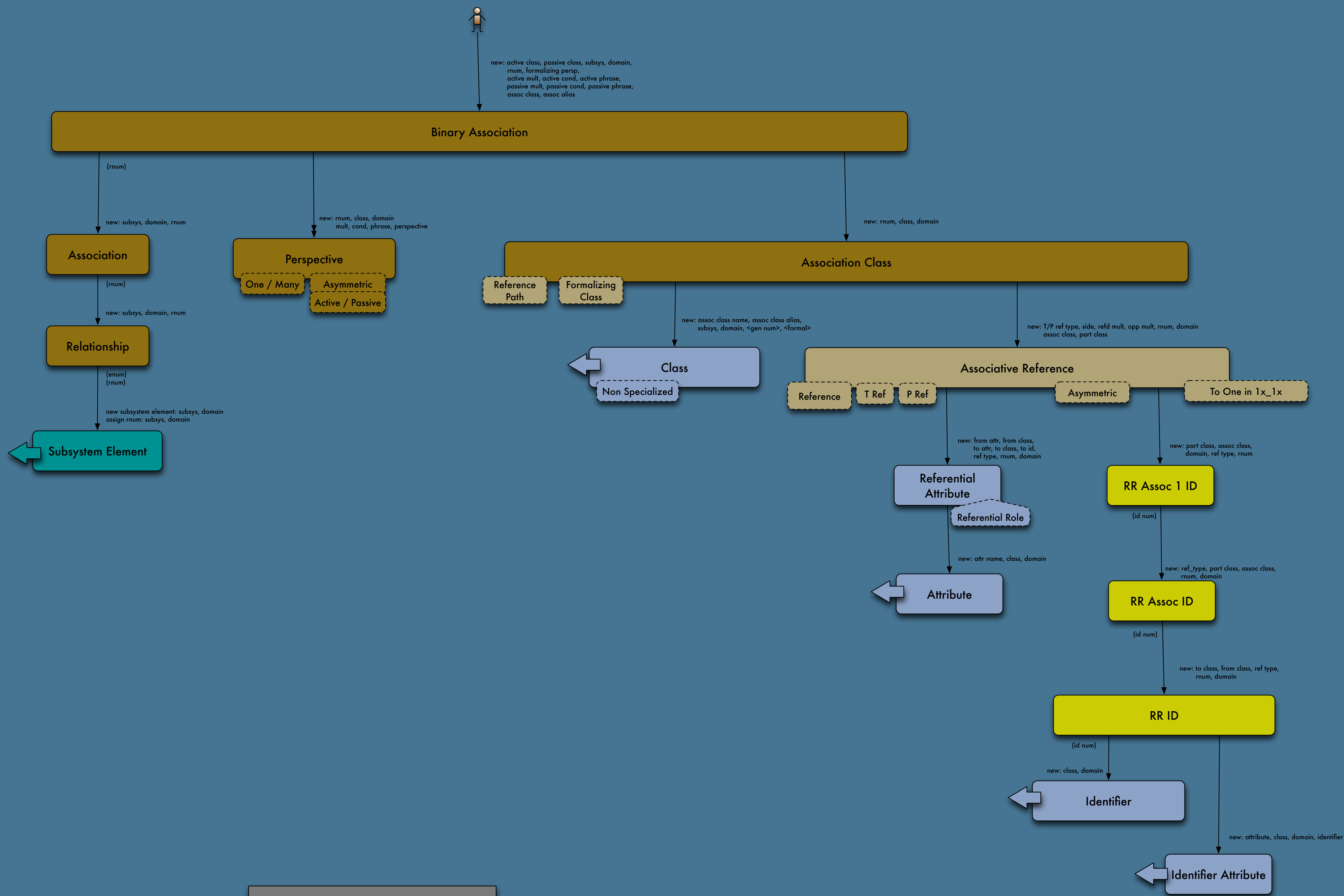
Class

Managed by attached class

Subclass

Association class

Class Model Editing
Collaboration Diagrams
miUML Metamodel

Leon Starr
August 29, 2011

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Version 1.0.0

New Unary Association w/Assoc Class
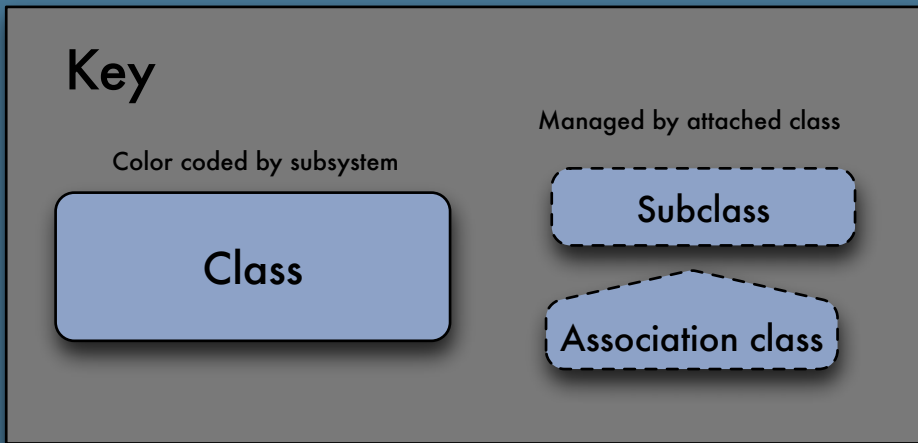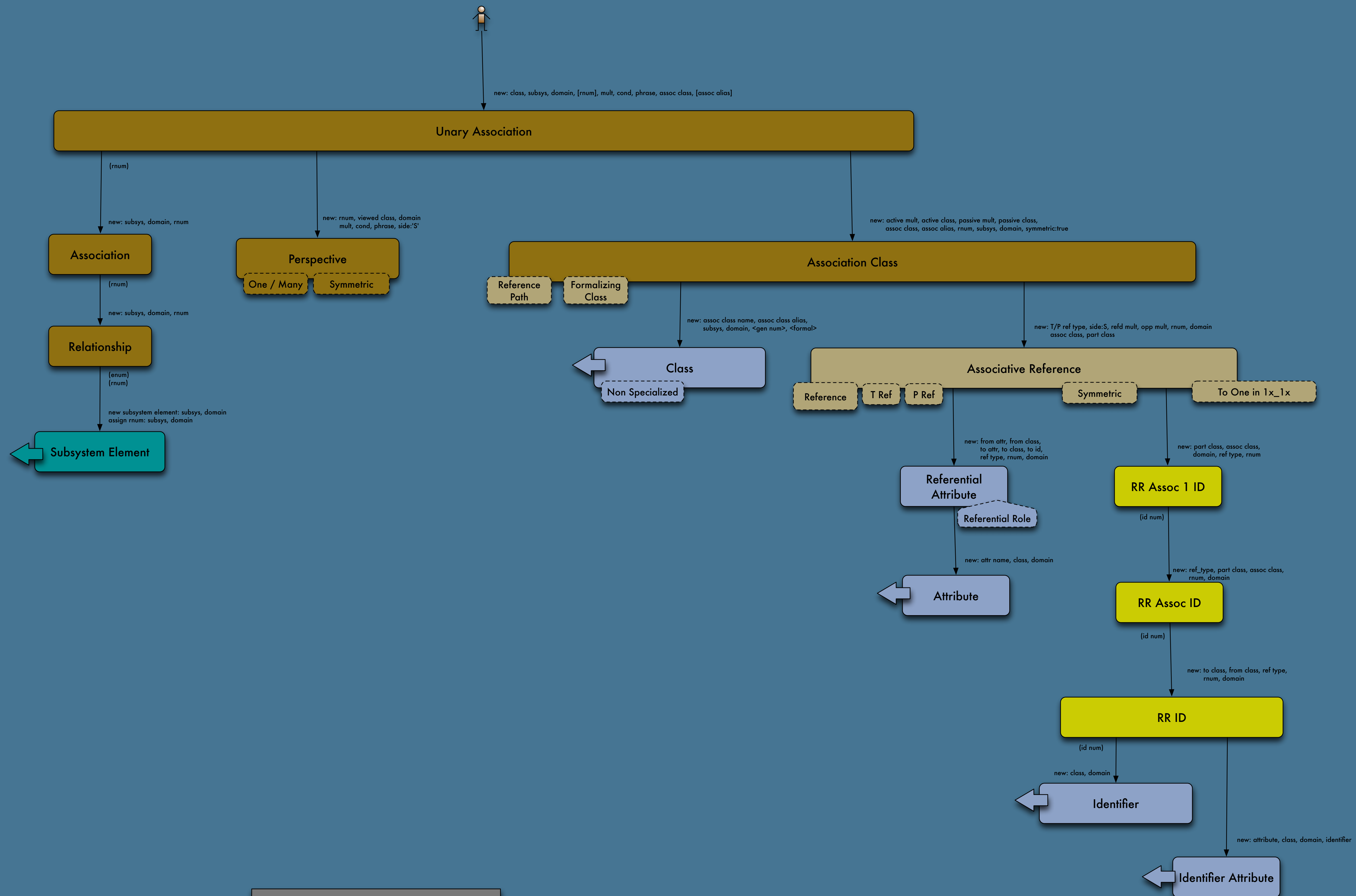
new: class, subsys, domain, [rnum], mult, cond, phrase, assoc class, [assoc alias]

Unary Association

(rnum)

new: subsys, domain, rnum

new: rnum, viewed class, domain
mult, cond, phrase, side:'S'

new: active mult, active class, passive mult, passive class,
assoc class, assoc alias, rnum, subsys, domain, symmetric:true

Association

(rnum)

new: subsys, domain, rnum

Relationship

(enum)
(rnum)

new subsystem element: subsys, domain
assign rnum: subsys, domain

Subsystem Element

Perspective

One / Many | Symmetric

Association Class

Reference Path | Formalizing Class

new: assoc class name, assoc class alias,
subsys, domain, <gen num>, <formal>

new: T/P ref type, side:S, refd mult, opp mult, rnum, domain
assoc class, part class

Class

Non Specialized

Associative Reference

Reference | T Ref | P Ref | Symmetric | To One in 1x_1x

new: from attr, from class,
to attr, to class, to id,
ref type, rnum, domain

new: part class, assoc class,
domain, ref type, rnum

Referential Attribute

Referential Role

new: attr name, class, domain

Attribute

RR Assoc 1 ID

(id num)

new: ref_type, part class, assoc class,
rnum, domain

RR Assoc ID

(id num)

new: to class, from class, ref type,
rnum, domain

RR ID

(id num)

new: class, domain

Identifier

new: attribute, class, domain, identifier

Identifier Attribute

Key

Color coded by subsystem

Class

Managed by attached class

Subclass

Association class

Set Unary Multiplicity

set mult: mult, cond, side, rnum, domain, [assoc class, [assoc alias]]

Association — clean: rnum, domain → **Relationship**

set mult: mult, cond, side, rnum, domain, [assoc class, [assoc alias]]

Unary Association

(rnum)

new: subsys, domain, rnum

Association

(rnum)

new: subsys, domain, rnum

Relationship

(enum)
(rnum)

new subsystem element: subsys, domain
assign rnum: subsys, domain

Subsystem Element

new: rnum, viewed class, domain
mult, cond, phrase, side:'S'

Perspective
One / Many | Symmetric

new: active mult, active class, passive mult, passive class,
assoc class, assoc alias, rnum, subsys, domain, symmetric::true

Association Class
Reference Path | Formalizing Class

new: assoc class name, assoc class alias,
subsys, domain, <gen num>, <formal>

Class
Non Specialized

new: T/P ref type, side:S, refd mult, opp mult, rnum, domain
assoc class, part class

Associative Reference
Reference | T Ref | P Ref | Symmetric | To One in 1x_1x

new: from attr, from class,
to attr, to class, to id,
ref type, rnum, domain

Referential Attribute
Referential Role

new: attr name, class, domain

Attribute

new: part class, assoc class,
domain, ref type, rnum

RR Assoc 1 ID

(id num)

new: ref_type, part class, assoc class,
rnum, domain

RR Assoc ID

(id num)

new: to class, from class, ref type,
rnum, domain

RR ID

(id num)

new: class, domain

Identifier

new: attribute, class, domain, identifier

Identifier Attribute

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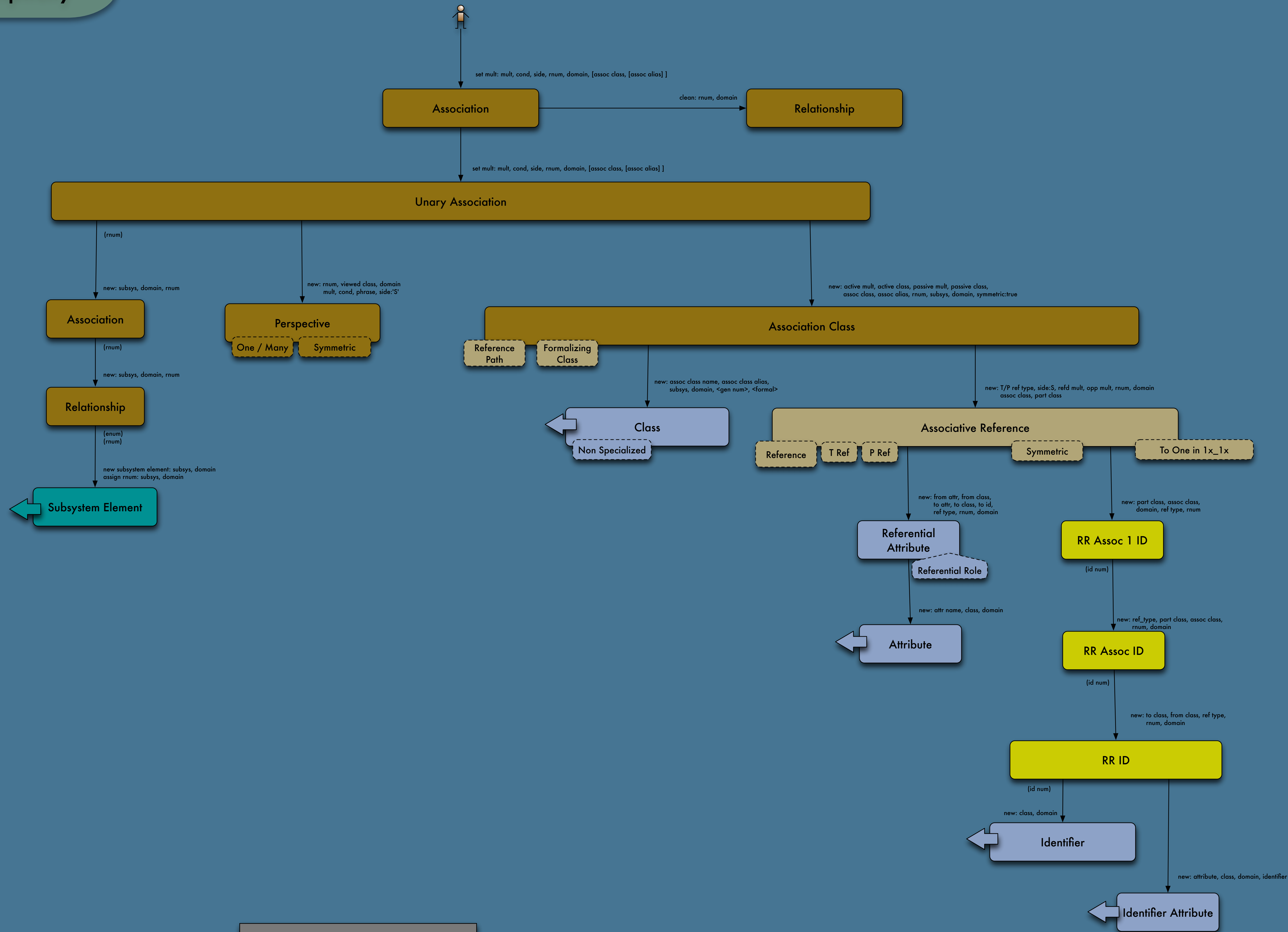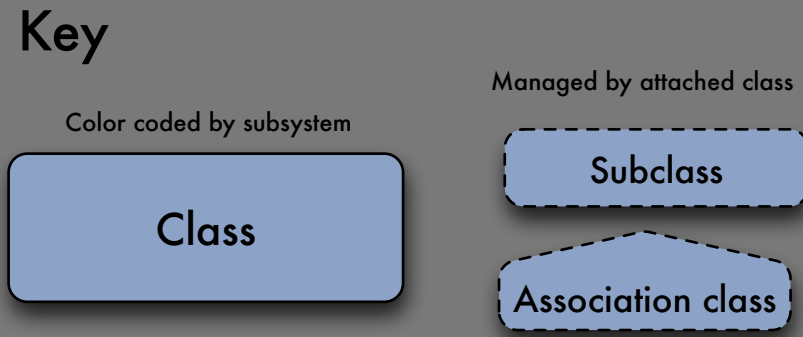(at your option) any later version. The license text should be viewable at
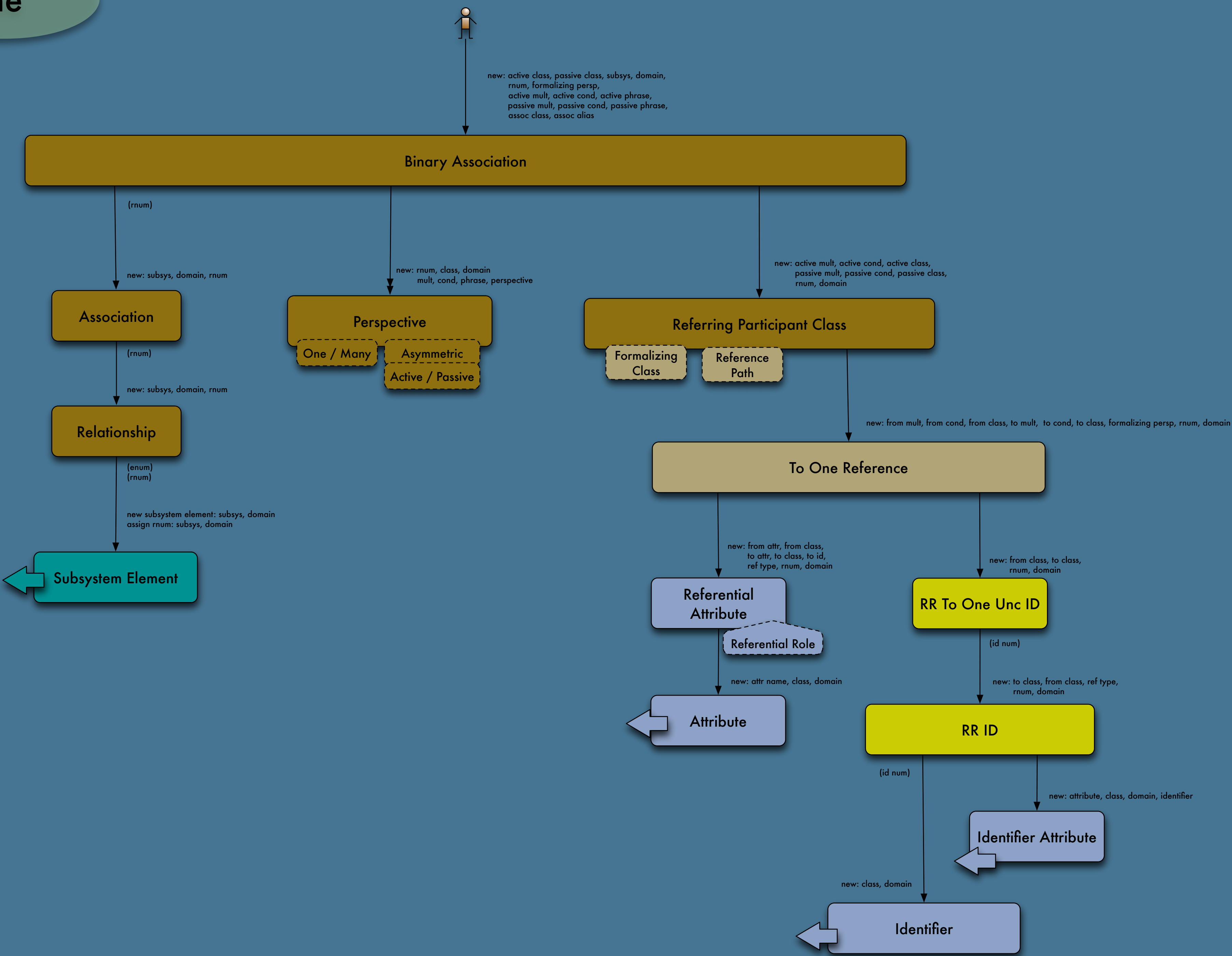http://www.gnu.org/licenses/

Key

Color coded by subsystem

Class

Managed by attached class

Subclass

Association class

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New Binary Association To One

new: active class, passive class, subsys, domain,
rnum, formalizing persp,
active mult, active cond, active phrase,
passive mult, passive cond, passive phrase,
assoc class, assoc alias

Binary Association

{rnum}

new: subsys, domain, rnum

new: rnum, class, domain
mult, cond, phrase, perspective

new: active mult, active cond, active class,
passive mult, passive cond, passive class,
rnum, domain

Association

{rnum}

Perspective

One / Many   Asymmetric

Active / Passive

Referring Participant Class

Formalizing Class   Reference Path

new: subsys, domain, rnum

Relationship

{enum}
{rnum}

new subsystem element: subsys, domain
assign rnum: subsys, domain

new: from mult, from cond, from class, to mult, to cond, to class, formalizing persp, rnum, domain

Subsystem Element

To One Reference

new: from attr, from class,
to attr, to class, to id,
ref type, rnum, domain

new: from class, to class,
rnum, domain

Referential Attribute

Referential Role

RR To One Unc ID

{id num}

new: attr name, class, domain

new: to class, from class, ref type,
rnum, domain

Attribute

RR ID

{id num}

new: attribute, class, domain, identifier

Identifier Attribute

new: class, domain

Identifier

Key

Color coded by subsystem

Managed by attached class

Class

Subclass

Association class

New Generalization

new: superclass, [superclass alias], subclasses, [subclass aliases], rnum, subsys, domain

Generalization

Minimal Partition

(rnum)

new: subsys, domain, rnum

new: name, [alias], subsys, rnum, domain

new: name, [alias], subsys, rnum, domain

Relationship

Superclass

Gen Role

Subclass

Gen Role | Formalizing Class | Reference Path

(enum)
(rnum)

new subsystem element: subsys, domain
assign rnum: subsys, domain

new: superclass name, superclass alias,
subsys, domain
migrate specialized: class, domain

new: from mult, from class, to class, to persp, to cond, rnum, domain

Subsystem Element

Class

Non Specialized Class | Specialized Class

new: superclass name, superclass alias,
subsys, domain, <formalized>
migrate specialized: class, domain

Superclass Reference

Reference

new: from attr, from class,
to attr, to class, to id,
ref type, rnum, domain

new: from class, to class,
rnum, domain

Referential Attribute

Referential Role

RR Subclass ID

new: to class, from class, ref type,
rnum, domain

RR ID

Key

Color coded by subsystem

Managed by attached class

Class

Subclass

Association class

Binary Association

new: active class, passive class, subsys, domain,
       rnum, formalizing persp,
       active mult, active cond, active phrase,
       passive mult, passive cond, passive phrase,
       assoc class, assoc alias

(rnum)

new: subsys, domain, rnum

Association

(rnum)

new: subsys, domain, rnum

Relationship

(enum)
(rnum)

new subsystem element: subsys, domain
assign rnum: subsys, domain

Domain
<< subsys >>

new: rnum, class, domain
mult, cond, phrase, perspective

Perspective

One / Many   Asymmetric
           Active / Passive

Class

Non Specialized

(enum)
(cnum)

new subsystem element: subsys, domain
assign cnum: subsys, domain

Domain
<< subsys >>

new: id name, id data type
       class name, domain

Independent
Attribute

next id num

new: assoc class name, assoc class alias,
       subsys, domain, <gen num>, <formal>

new: attr, class, domain

Modeled Identifier

(id num)

new: name, class, domain, type

Native Attribute

(id num)

new: attribute, class, domain, identifier

Identifier

new: class, domain

Identifier Attribute

new: attribute, class, domain, identifier

new: rnum, class, domain

Referring
Participant Class

new: rnum, class, domain

Formalizing Class

Reference Path

new: from class, to class, rnum, domain

To One Reference

new: from mult, from class, to class, to persp, to cond, rnum, domain

new: ref type, from class,
       to class, rnum, domain

Reference

new: from attr, from class,
       to attr, to class, to id,
       ref type, rnum, domain

Referential
Attribute

Referential Role

new: from class, to class,
       rnum, domain

RR To One Unc ID

(id num)

new: to class, from class, ref type,
       rnum, domain

RR ID

(id num)

new: attr name, class, domain

Attribute

new: attr name, class, domain

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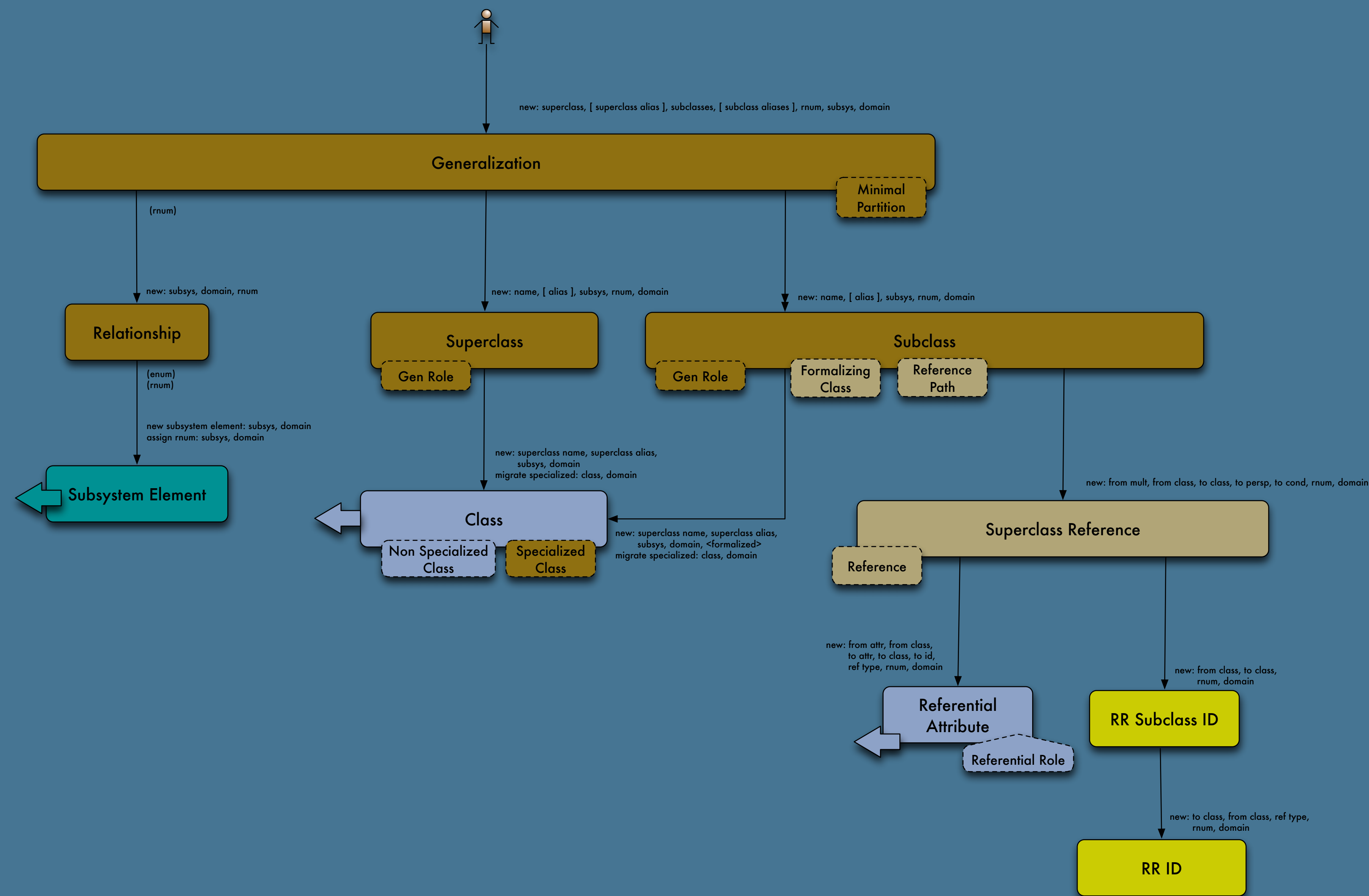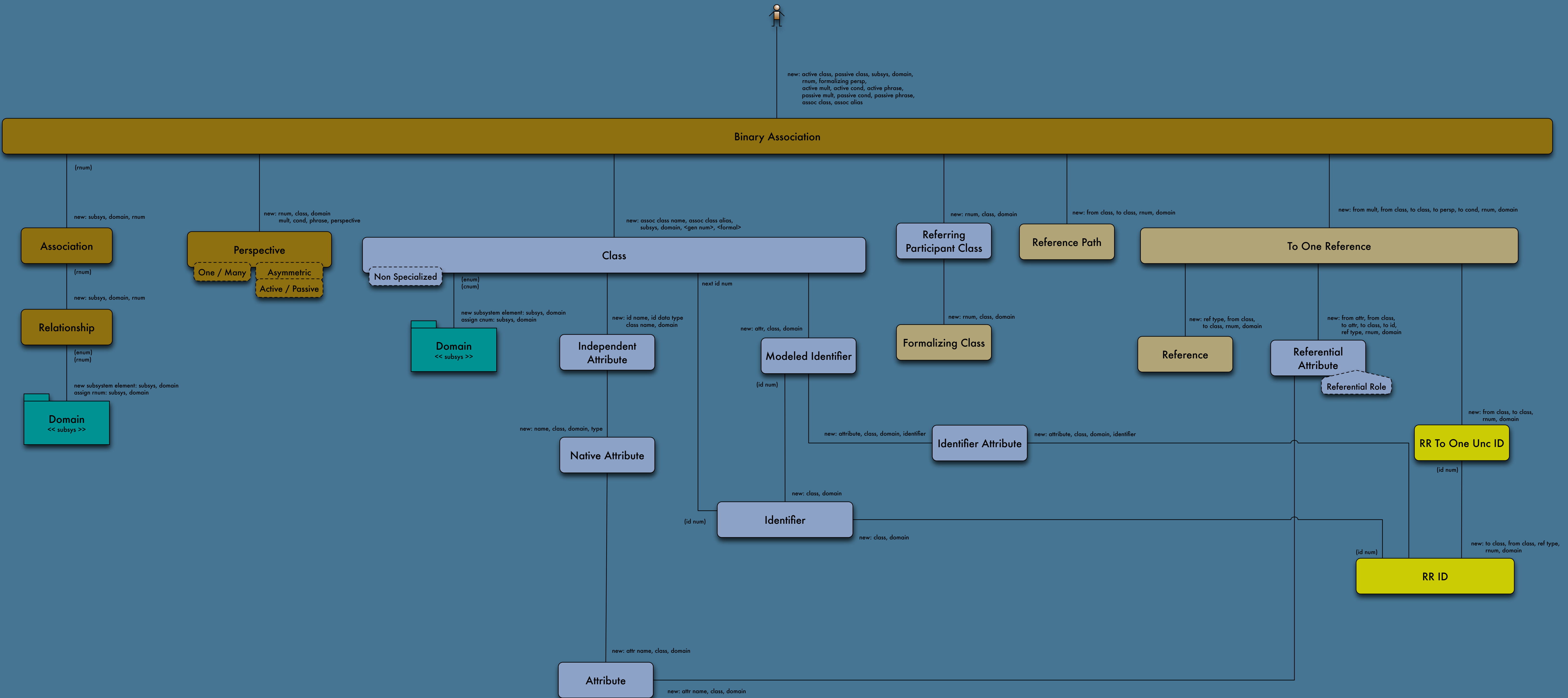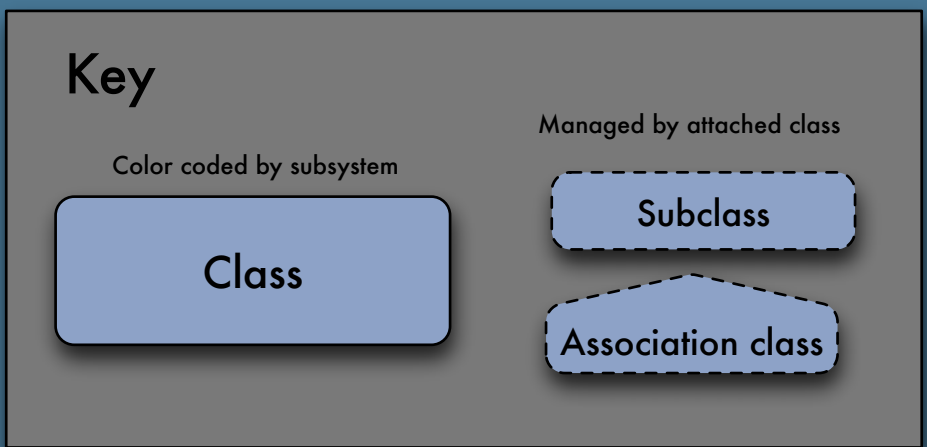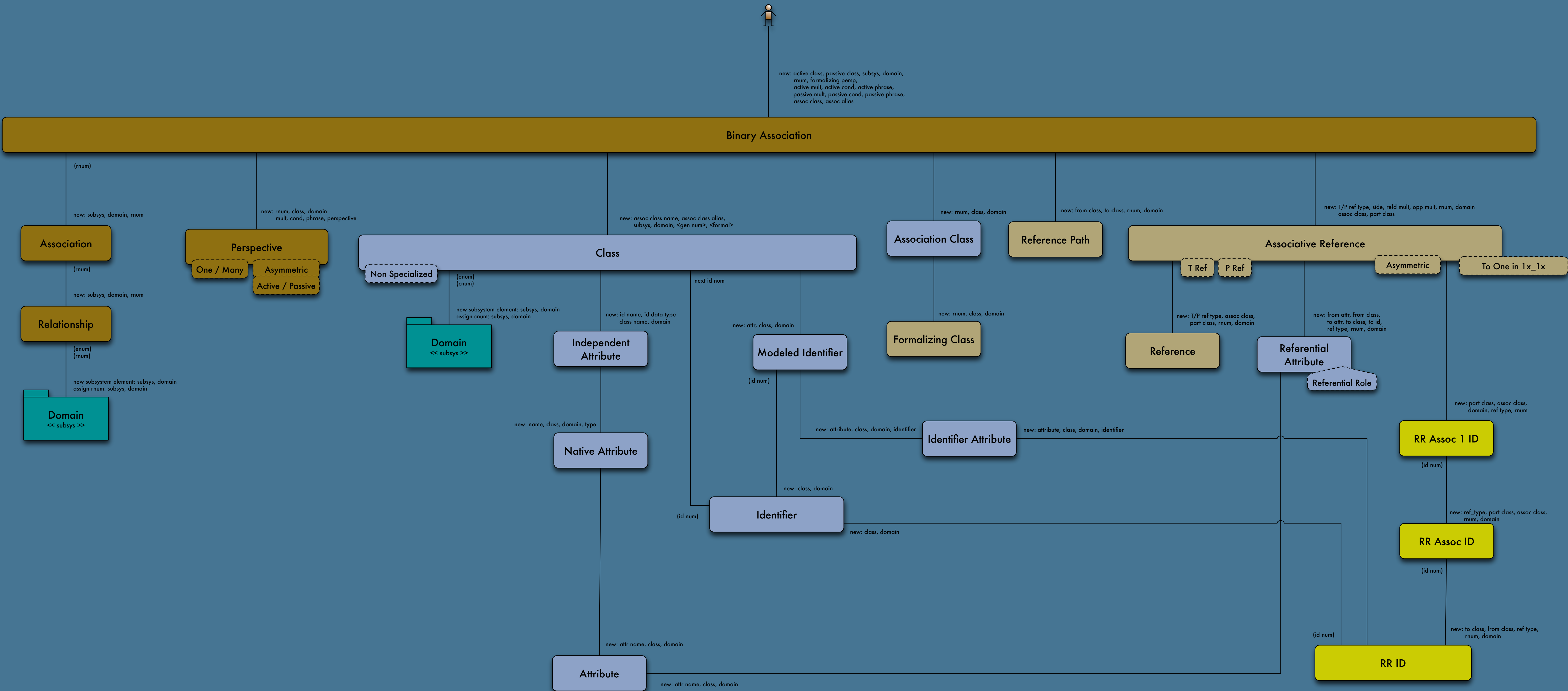(at your option) any later version. The license text should be viewable at
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Key

Color coded by subsystem

Class

Managed by attached class

Subclass

Association class

new: active class, passive class, subsys, domain,
rnum, formalizing persp,
active mult, active cond, active phrase,
passive mult, passive cond, passive phrase,
assoc class, assoc alias

Binary Association

(rnum)

new: subsys, domain, rnum

new: rnum, class, domain
mult, cond, phrase, perspective

new: assoc class name, assoc class alias,
subsys, domain, <gen num>, <formal>

new: rnum, class, domain

new: from class, to class, rnum, domain

new: T/P ref type, side, refd mult, opp mult, rnum, domain
assoc class, part class

Association

(rnum)

new: subsys, domain, rnum

Perspective

One / Many   Asymmetric

Active / Passive

Class

Non Specialized

(enum)
(cnum)

Association Class

Reference Path

Associative Reference

T Ref   P Ref   Asymmetric   To One in 1x_1x

Relationship

(enum)
(rnum)

new subsystem element: subsys, domain
assign rnum: subsys, domain

next id num

new subsystem element: subsys, domain
assign cnum: subsys, domain

new: id name, id data type
class name, domain

new: attr, class, domain

new: rnum, class, domain

new: T/P ref type, assoc class,
part class, rnum, domain

new: from attr, from class,
to attr, to class, to id,
ref type, rnum, domain

Domain
<< subsys >>

Independent Attribute

Modeled Identifier

Formalizing Class

Reference

Referential Attribute

Referential Role

Domain
<< subsys >>

(id num)

new: attribute, class, domain, identifier

Identifier Attribute

new: attribute, class, domain, identifier

new: part class, assoc class,
domain, ref type, rnum

RR Assoc 1 ID

(id num)

new: name, class, domain, type

Native Attribute

new: class, domain

(id num)

Identifier

new: class, domain

new: ref_type, part class, assoc class,
rnum, domain

RR Assoc ID

(id num)

new: attr name, class, domain

Attribute

new: attr name, class, domain

(id num)

(id num)

RR ID

new: to class, from class, ref type,
rnum, domain

Key

Color coded by subsystem
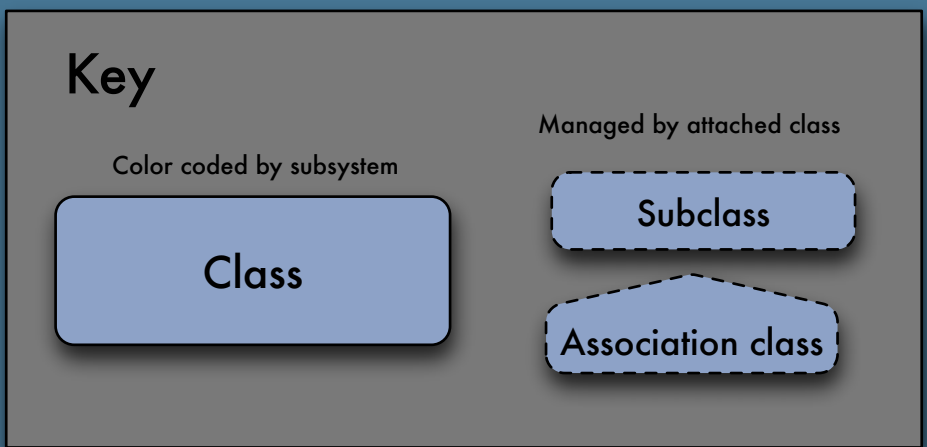
Managed by attached class

Class

Subclass

Association class

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