miUML Formalization Subsystem scrapbook

Leon Starr
Sat May 28 2011

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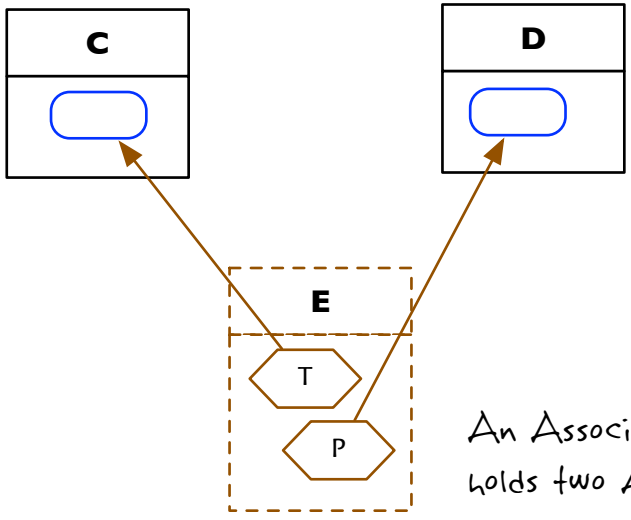
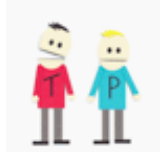


An Association Class always holds two Associative References.

The two References are arbitrarily named T and P.



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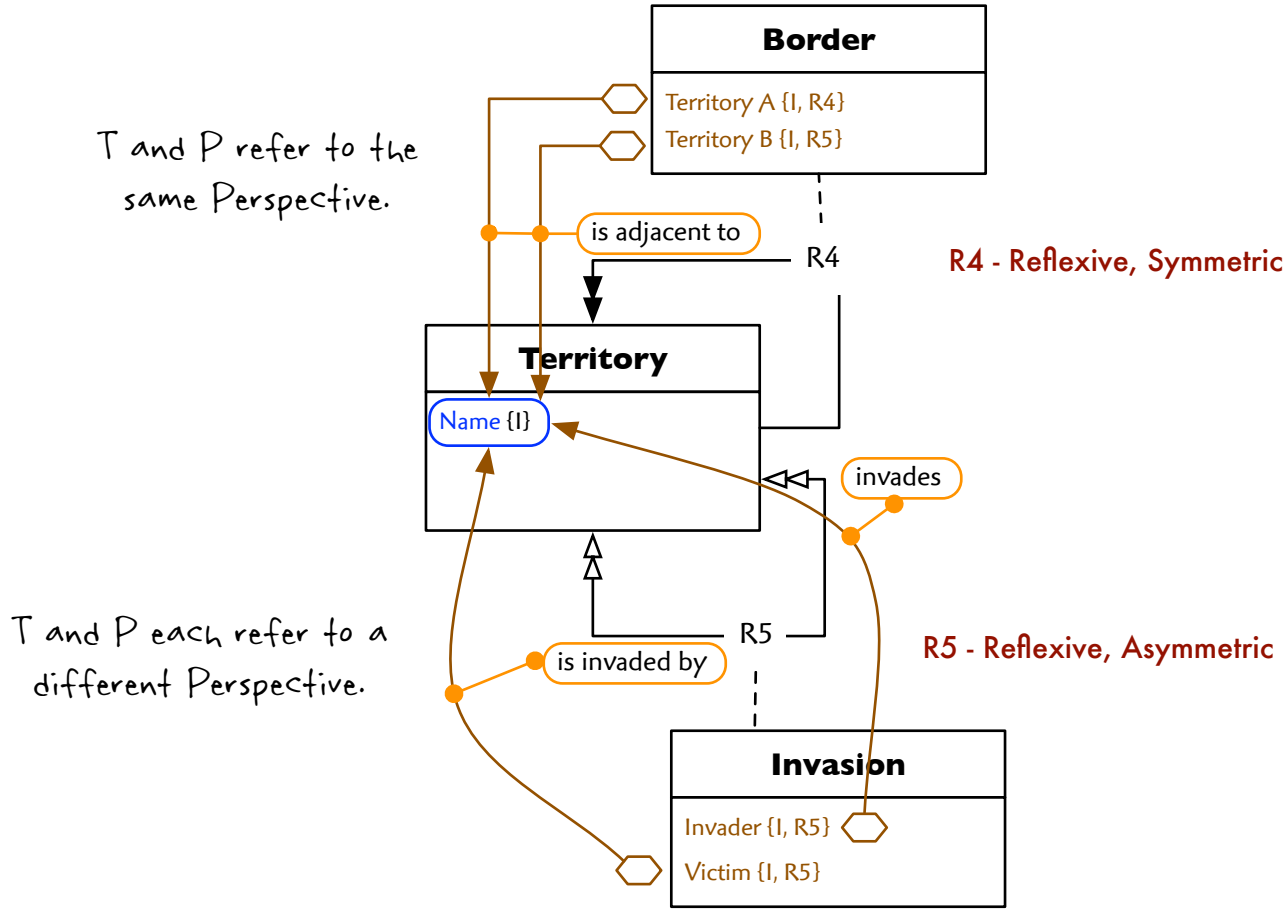
Differing multiplicity for Symmetric vs. Asymmetric Reference Types



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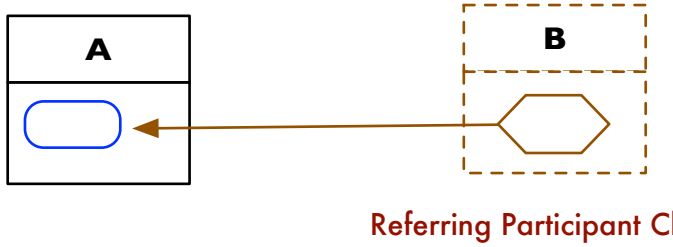
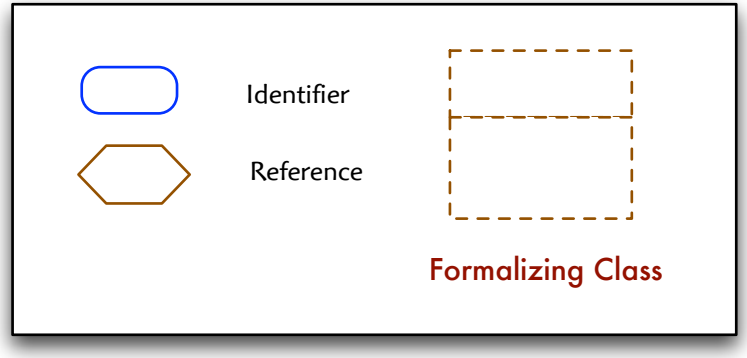
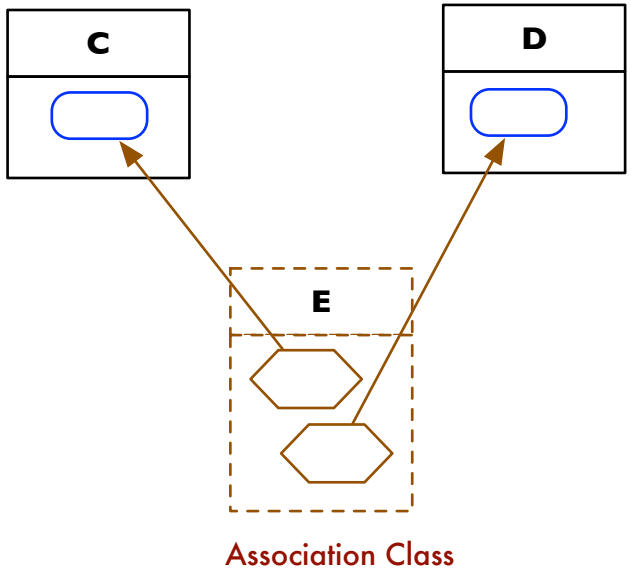
Non Associative Formalization

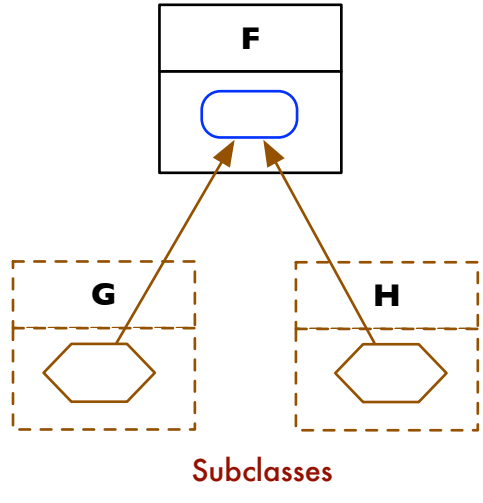




Associative Formalization



Generalization Formalization



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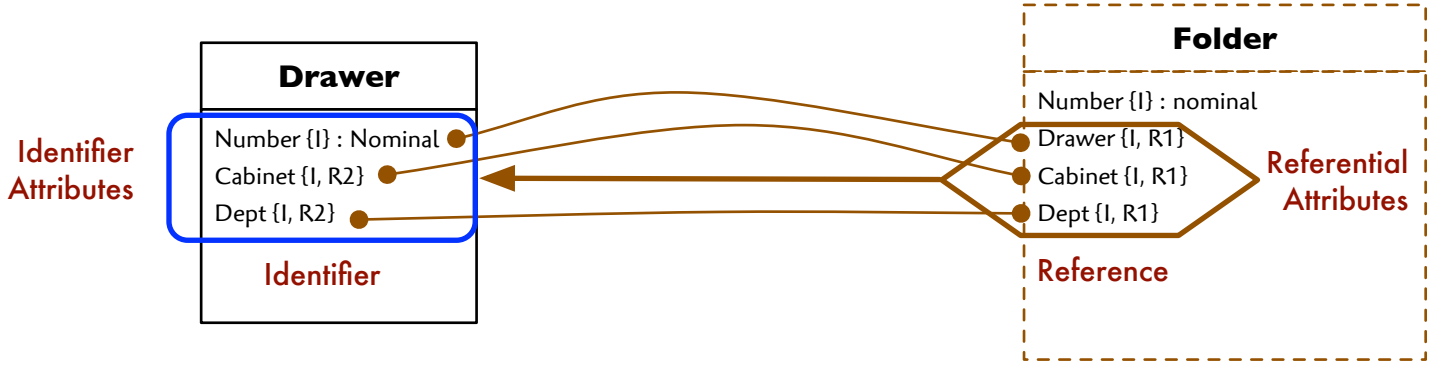

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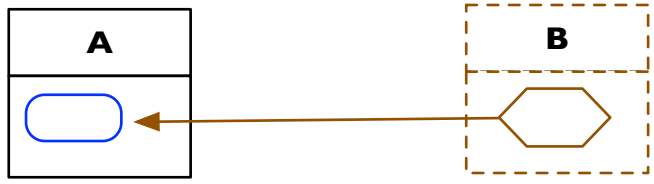
In each of these cases, there is only one Reference per Reference Path.

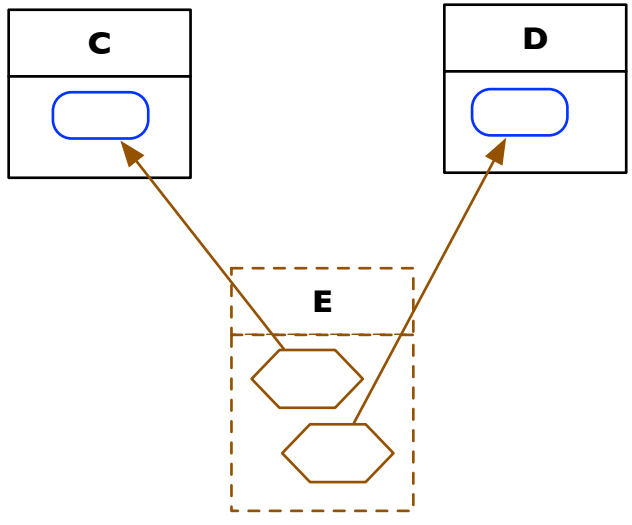
R1 - Non-associative



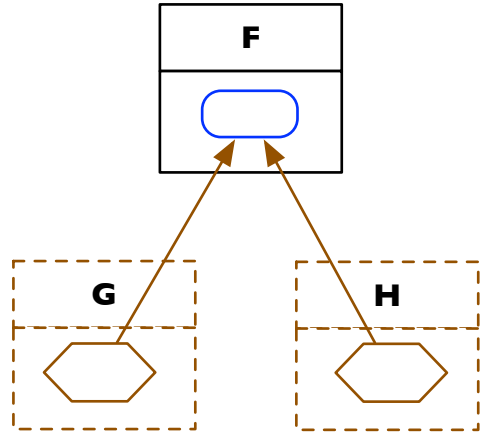
Reference Paths

R1:A->B
R2:E->C
R2:E->D
R3:G->F
R3:H->F

R2 - Associative



R3 - Generalization



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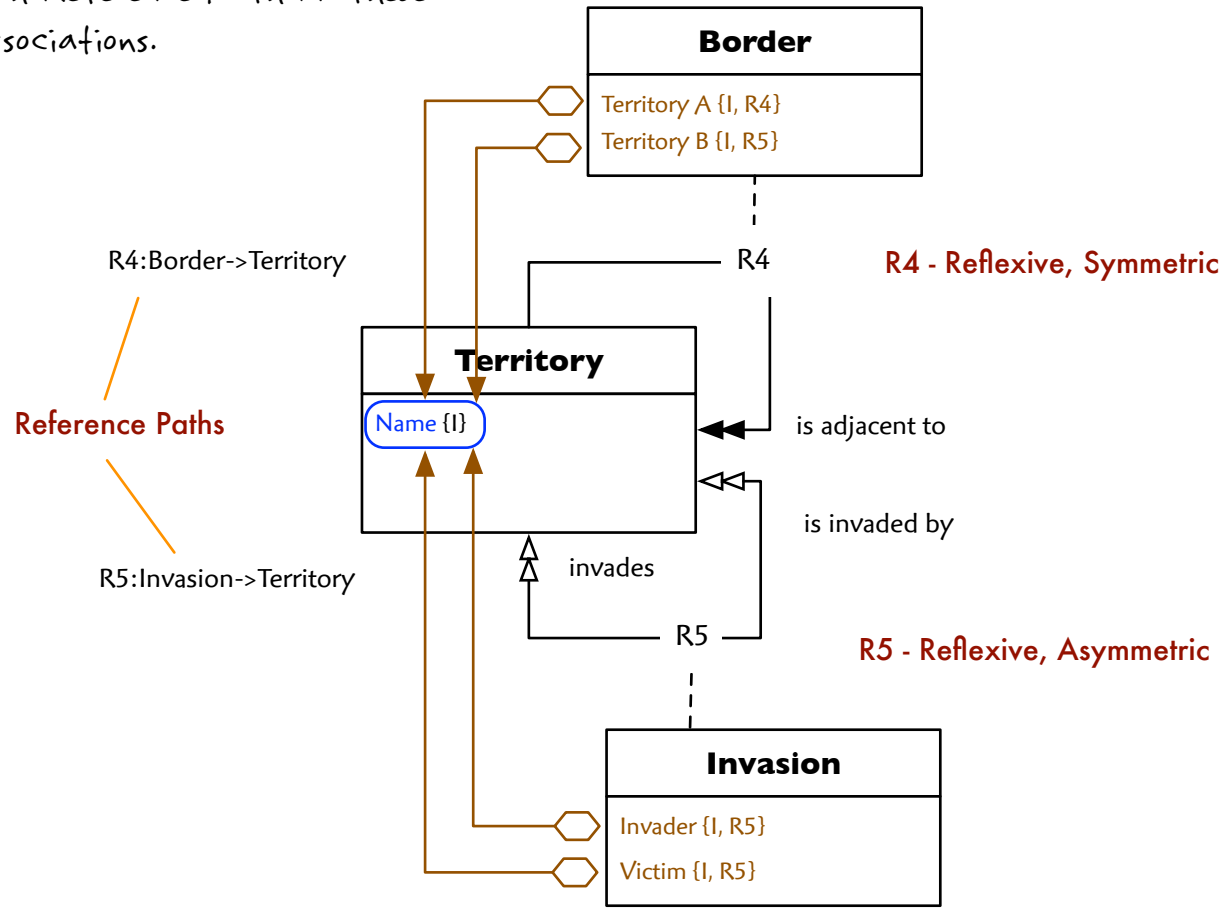
Two Associative References follow each Reference Path in these Associations.



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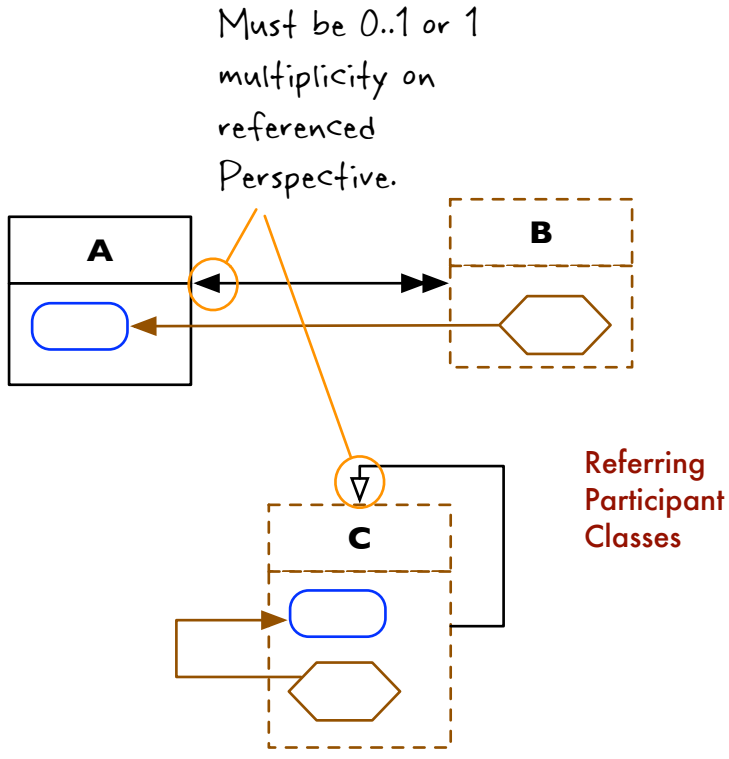

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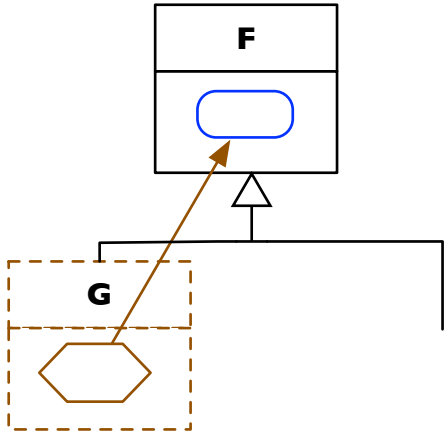

Superclass Reference

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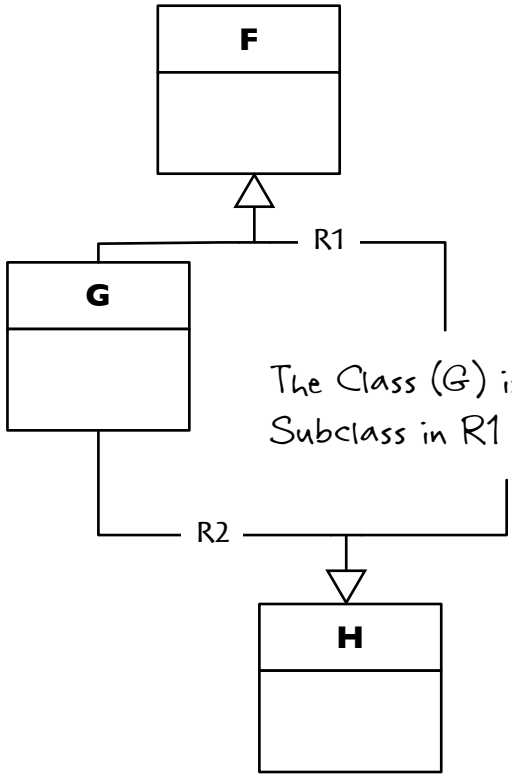
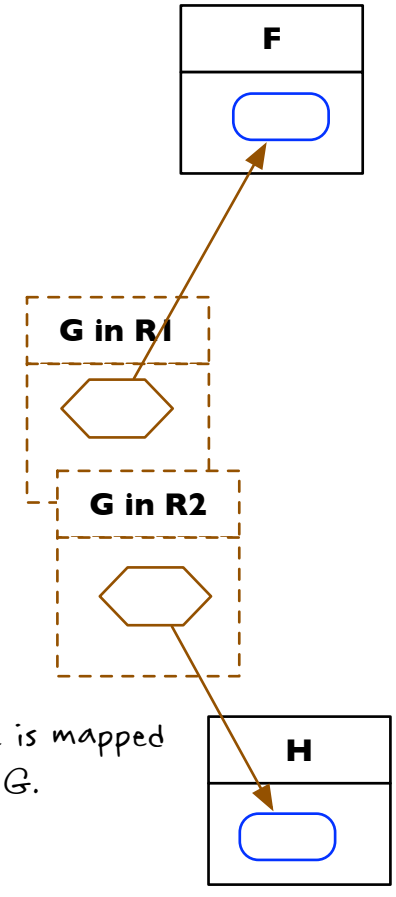


The Class (G) is simultaneously a Subclass in R1 and R2.



Each Subclass role is mapped to the same Class, G.

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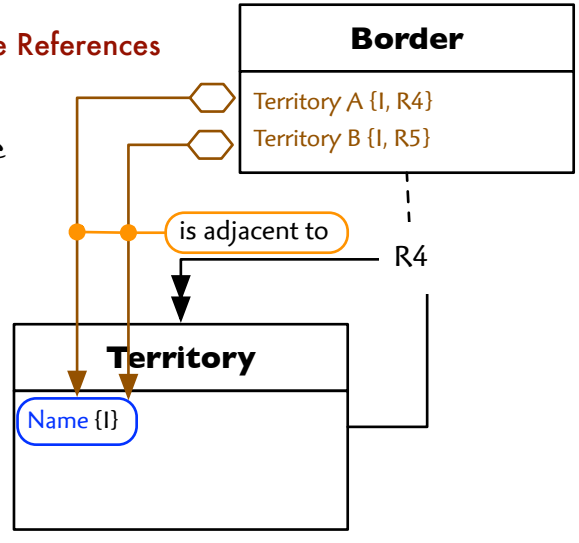
Symmetric Associative References

T and P refer to the same Perspective.



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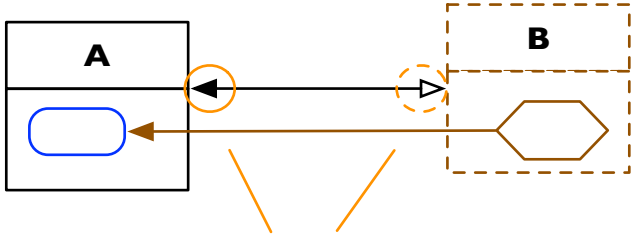
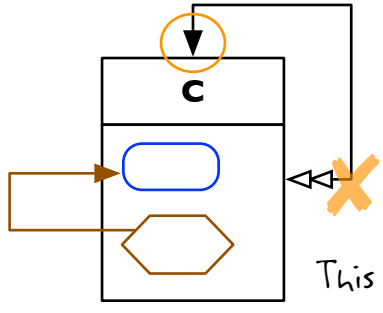
Legal To One References



Either Perspective may be referenced by a To One Reference since neither is Mx (0..* or 1..*), though 1 is preferred over 0..1.



This Perspective is 0..*, so it may not be referenced by a To One Reference.

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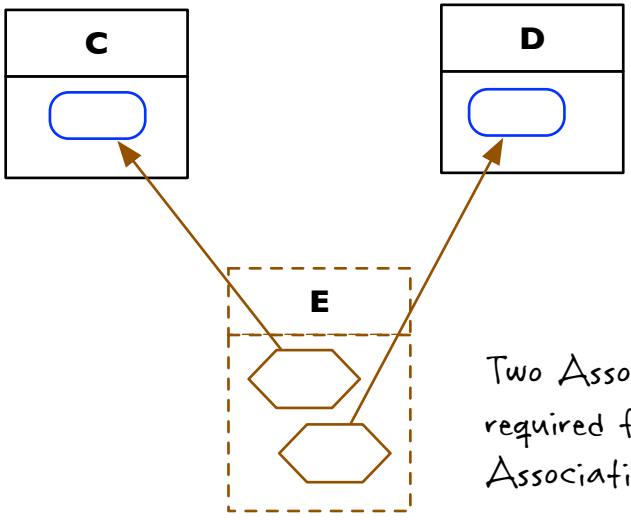
R2 - Non-reflexive



Associative Paths

R2:E->C
R2:E->D

Two Associative Paths are required for non-reflexive Association Class Relationships.

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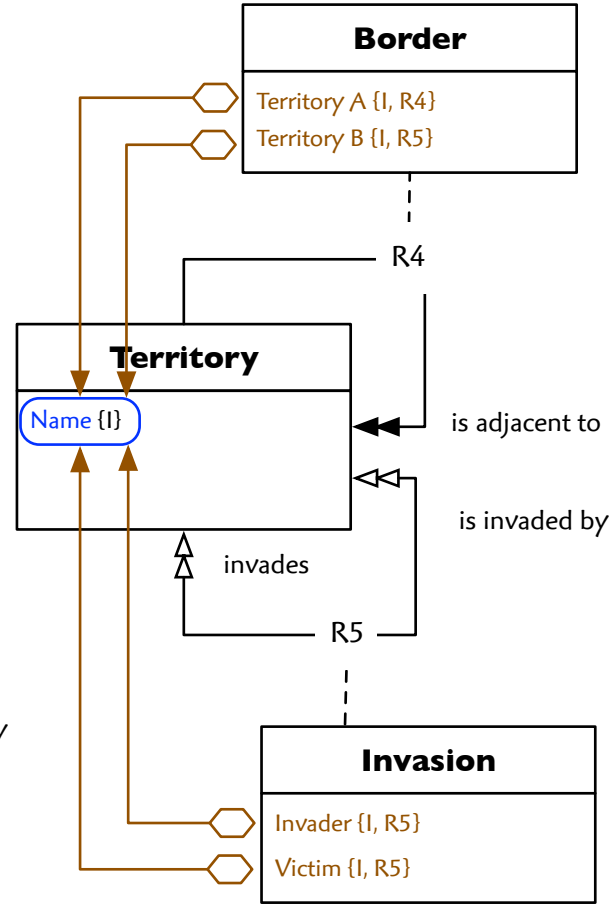
R4 - Reflexive, Symmetric
R5 - Reflexive, Asymmetric

Only One Associative Path is required for a reflexive Association since there is only one participating Class on the Association.



Associative Paths

R4:Border->Territory
R5:Invasion->Territory

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