Cartographic Scale
Linked Data for Libraries Cartographic Materials Working Group
Ontology Modeling Examples -- **Draft Version 2**, May 2018

Ontologies

```
@prefix bf:   <http://id.loc.gov/ontologies/bibframe/> .
@prefix gcro: <http://http://ontology.library.harvard.edu/geo/> .
@prefix rdau: <http://rdaregistry.info/Elements/u/> .
```

Classes

bf:Scale
    Subclasses:
        gcro:HorizontalScale
        gcro:VerticalScale
        gcro:ScaleIndeterminable
        gcro:ScaleNotDetermined
        gcro:NotDrawnToScale
        gcro:ScaleVaries
        gcro:ScaleNotGiven
        gcro:ScalesDiffer

gcro:ScaleAccuracy
    Named Individuals:
        gcro:ExplicitScale
        gcro:ApproximateScale
        gcro:InaccurateScale
        gcro:ScaleAccuracyUnknown

gcro:ScaleSource
    Named Individuals:
        gcro:RepresentativeFraction
        gcro:VerbalStatement
        gcro:ScaleBar
        gcro:CalculatedFromPrimarySource
        gcro:DerivedOther
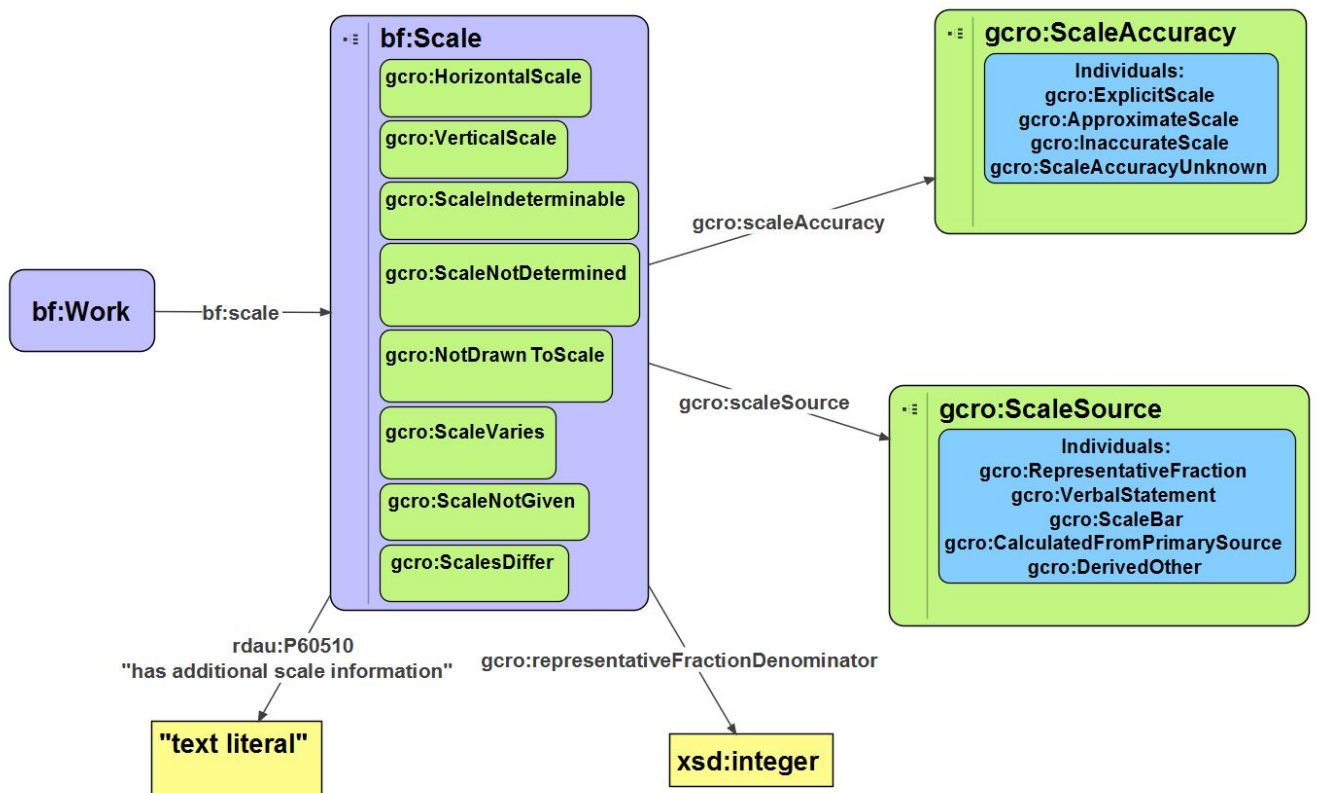
Object Properties

bf:scale

gcro:scaleAccuracy
gcro:scaleSource

Data Properties

gcro:representativeFractionDenominator

rdau:P60510 ["has additional scale information"]

Illustration

Examples

Example 1 "Scale 1:24,000."

:work1 bf:scale :scale1 .

:scale1 a gcro:HorizontalScale ;
        gcro:representativeFractionDenominator "24000"^^xsd:integer ;
        gcro:scaleAccuracy gcro:ExplicitScale ;
        gcro:scaleSource gcro:RepresentativeFraction .

Example 2 "Scale approximately 1 inch to a mile."

:work2 bf:scale :scale2 .

:scale2 a gcro:HorizontalScale ;
        gcro:representativeFractionDenominator "63360"^^xsd:integer ;
        rdau:P60510 "1 inch to a mile" ;
        gcro:scaleAccuracy gcro:ApproximateScale ;
        gcro:scaleSource gcro:VerbalScale .

Example 3 Scale example inaccurately stated: "Scale approximately 1:40,000 not 1:63,360"

:work3 bf:scale :scale3a, :scale3b .

:scale3a a gcro:HorizontalScale ;
        gcro:representativeFractionDenominator "63360"^^xsd:integer ;
        gcro:scaleAccuracy gcro:InaccurateScale ;
        gcro:scaleSource gcro:RepresentativeFraction .

:scale3b a gcro:HorizontalScale ;
        gcro:representativeFractionDenominator "40000"^^xsd:integer ;
        rdau:P60510 "Scale approximately 1:40,000 not 1:63,360" ;
        gcro:scaleAccuracy gcro:ApproximateScale ;
        gcro:scaleSource gcro:CalculatedFromPrimarySource .

Example 4 Pictorial View

:work4 bf:scale :scale4 .

:scale4 a gcro:NotDrawnToScale .

Example 5 Map 1: England Scale bar approximately 1:1,500,000 ;
Map 2: Inset of London - Scale Not Given

:work5 dcterms:hasPart :part1, :part2 .

:part1 bf:scale :scale5a .

:scale5a gcro:representativeFractionDenominator "1500000"^^xsd:integer ;
        gcro:scaleAccuracy gcro:ApproximateScale ;
        gcro:scaleSource gcro:ScaleBar .

:part2 bf:scale :scale5b .

:scale5b a gcro:ScaleNotGiven ;
        rdau:P60510 "Scale Not Given." .