Prefixes

PREFIX rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#>

PREFIX owl: <http://www.w3.org/2002/07/owl#>

PREFIX rdfs: <http://www.w3.org/2000/01/rdf-schema#>

PREFIX xsd: <http://www.w3.org/2001/XMLSchema#>

PREFIX eq: <https://crm-eq.ics.forth.gr/ontology#>

PREFIX crm: <http://www.cidoc-crm.org/cidoc-crm/>

PREFIX crmsci: <http://www.cidoc-crm.org/extensions/crmsci/>

Query 1 : "Find all earthquakes in Platakis book with intensity between 7 and 10 that happened in Heraklion. "

SELECT \* WHERE {

{?earthquake a eq:EQ1\_Earthquake}

{?earthquake crm:P7\_took\_place\_at eq:Heraklion}

{?earthquake crm:P70i\_is\_documented\_in eq:Platakis\_Book}

{?earthquake crmsci:O11i\_was\_described\_by ?evaluation}

{?evaluation crmsci:O10\_assigned\_dimension ?dimension}

{?dimension crm:P2\_has\_type eq:intensity }

{?dimension crm:P90\_has\_value ?value

filter (datatype(?value) = xsd:int)filter(?value>6 && ?value<11)}

UNION

{?dimension crm:P90a\_has\_lower\_value\_limit ?lowValue

filter (datatype(?lowValue) = xsd:int)filter(?lowValue>6 && ?lowValue<11)}

UNION

{?dimension crm:P90b\_has\_upper\_value\_limit ?highValue

filter (datatype(?highValue) = xsd:int)filter(?highValue>6 && ?highValue<11)}

}

Query 2 : " Give me all earthquakes with intensity >= 6 between 1800

and today, whose focus falls into Crete. For each earthquake, give the following

information: date, place, intensity, uncertainty factor (if any), information

sources. "

SELECT ?eq ?date ?place ?intensity ?uncertainty ?source\_title

WHERE {

?eq a eq:EQ1\_Earthquake ; crm:P4\_has\_time-span ?timespan ; crm:P7\_took\_place\_at ?place .

?place crm:P89\_falls\_within eq:Crete.

?timespan crm:P82\_at\_some\_time\_within ?date . FILTER (?date<1800) .

?eq crmsci:O12\_has\_dimension ?intDim .

?intDim crm:P2\_has\_type eq:intensity ;

crm:P90\_has\_value ?intensity FILTER(?intensity >= 6) .

OPTIONAL { ?magnDim eq:PEQ9\_has\_documented\_uncertainty\_factor ?uncertainty }

OPTIONAL { ?eq crm:P129i\_is\_subject\_of ?reference\_list .

?reference\_list crm:P70i\_is\_documented\_in ?source;

crm:P67\_refers\_to ?reffered\_source .

}

}

Query 3 : "Find all earthquakes that have a comparison and the result of that comparison”

SELECT ?earthquake1 ?earthquake2 ?eval ?eval\_result

WHERE {

{?earthquake1 a eq:EQ1\_Earthquake}

{?earthquake2 a eq:EQ1\_Earthquake}

{?eval a eq:EQ2\_Comparison\_Evaluation}

{ ?eval eq:PEQ4\_has\_comparison\_value ?eval\_result}

{ ?eval eq:PEQ2\_checks\_equality\_of ?earthquake1}

{ ?eval eq:PEQ3\_checks\_equality\_to?earthquake2}

}

Query 4: “Find all duration measurements and their values about e1 carried out by Asterosopeio\_Athinon”.

SELECT \*

WHERE {

{eq:e1 crmsci:O24i\_was\_measured\_by ?measurement}

{?measurement crm:P14\_carried\_out\_by eq:Asteroskopeio\_Athinon}

{?measurement crm:P40\_observed\_dimension ?dimension}

{?dimension crm:P2\_has\_type eq:duration}

{?dimension crm:P90\_has\_value ?value}

UNION

{?dimension crm:P90a\_has\_lower\_value\_limit ?low\_value ;

crm:P90b\_has\_upper\_value\_limit?high\_value. }

}