

# Evaluation of Australian Climate Observations Reference Network - Surface Air Temperature Dataset (ACORN-SAT) RDF Data Sets

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**Abstract.** Evaluation of Australian Climate Observations Reference Network - Surface Air Temperature Dataset (ACORN-SAT) RDF Data Sets

**Keywords:** RDF Validation, RDF Constraints, DDI-RDF Discovery Vocabulary, Disco, RDF Data Cube Vocabulary, Linked Data, Semantic Web

## 1 Data Model Consistency

	Constraints										
Data Sets	DATA-MODEL-CONSISTENCY-01	DATA-MODEL-CONSISTENCY-02	DATA-MODEL-CONSISTENCY-03	DATA-MODEL-CONSISTENCY-04	DATA-MODEL-CONSISTENCY-05	DATA-MODEL-CONSISTENCY-06	DATA-MODEL-CONSISTENCY-07	DATA-MODEL-CONSISTENCY-08	DATA-MODEL-CONSISTENCY-09	DATA-MODEL-CONSISTENCY-10 (!)	DATA-MODEL-CONSISTENCY-11
	<a href="http://lab.environment.data.gov.au/sparql">http://lab.environment.data.gov.au/sparql</a>	✓	8	✓	✓	✓	✓	✓	✓	-	✓

Table 1: Evaluation of <http://lab.environment.data.gov.au/sparql>

## 2 Existential Quantifications

Data Sets	Constraints			
	<i>EXISTENTIAL-QUANTIFICATIONS-01</i>			
	<i>EXISTENTIAL-QUANTIFICATIONS-02</i>			
	<i>EXISTENTIAL-QUANTIFICATIONS-03</i>			
	<i>EXISTENTIAL-QUANTIFICATIONS-04</i>			
<i><a href="http://lab.environment.data.gov.au/sparql">http://lab.environment.data.gov.au/sparql</a></i>	✓	✓	4	✓

Table 2: Evaluation of <http://lab.environment.data.gov.au/sparql>

### 3 Cardinality Restrictions

Data Sets	Constraints			
<a href="http://lab.environment.data.gov.au/sparql">http://lab.environment.data.gov.au/sparql</a>	MINIMUM-QUALIFIED-CARDINALITY-RESTRICTIONS-02	MAXIMUM-QUALIFIED-CARDINALITY-RESTRICTIONS-01	EXACT-UNQUALIFIED-CARDINALITY-RESTRICTIONS-01	EXACT-QUALIFIED-CARDINALITY-RESTRICTIONS-02

Table 3: Evaluation of <http://lab.environment.data.gov.au/sparql>

## 4 Structure

Data Sets	Constraints	
	<i>STRUCTURE-01</i>	<i>STRUCTURE-02</i>
<i>http://lab.environment.data.gov.au/sparql</i>	✓	✓

Table 4: Evaluation of *http://lab.environment.data.gov.au/sparql*

## 5 Further Constraints