## What is Tupelo?

Tupelo is a data and metadata management system based on semantic web technologies. Tupelo provides a variety of generic utilities for managing data and metadata using both best-of-breed semantic database implementations such as Jena and Sesame, as well as ordinary storage technologies such as flat files. Tupelo makes data and metadata portable across a variety of Contexts and deployment scenarios, including desktop applications, web-based applications, and more complex distributed architectures. Its use of global identification and explicit semantics means that metadata created and managed with Tupelo can be easily exported and used by a wide variety of RDF-aware tools and technologies.

Tupelo is designed for managing large-scale, complex scientific data and metadata collections. It is also suitable for more conventional digital libraries containing Dublin Core or other standard digital library metadata schemas. Its RDF-based metadata framework can support a wide variety of schemas, from simple, flat-namespace schemas such as Dublin Core, to hierarchical models derived from XML Schema, to more web-like models derived from RDF variants such as RSS.

## **Features**

- · Client-side bindings for multiple RDF stores and other content management systems and protocols including
  - Jena
  - Sesame
  - ° RSS
  - WebDAV
  - WebbatURIQA
  - o plain filesystem
  - MySQL
  - PostgreSQL
  - Derby
  - H2
  - o Oracle with semantic extensions
- Server-side support for content API's including
  - URIQA
  - ° RSS
- Abstract "Context"/"Operator" model supporting
  - Writing and querying RDF data to heterogeneous stores
  - Reading and writing binary streams
  - Merging/mirroring heterogeneous RDF and content stores
  - Declarative specification and procedural execution of RDF transformation rules
  - Rudimentary ability to execute SPARQL queries and SWRL rules even when backend storage technologies do not support those languages

## About the name

The name "Tupelo" comes from the word "tuple". It's also the name of a kind of gum tree as well as the birthplace of Elvis Presley.