# dotNetRDF Design Document

## dotNetRDF Version 0.4.2

Library: dotNetRDF.dll  
Version: 0.4.2  
Target Date: June 2011  
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## Required Features

* SPARQL Support to match 1.1 Last Call specifications which should be released by time development on this branch starts
* Migrate as much of the core Leviathan engine as feasible directly into LeviathanQueryProcessor and LeviathanUpdateProcessor respectively
* RDFa Parser rewrite

## Time Permitting Features

* None at present

## Known Issues/Bugs to Fix

* None at present

# Design

## SPARQL Support to 1.1 Last Call Specification

Unable to elaborate on any needed changes at present as Last Call specifications have yet to be published

## Migrate core engine into LeviathanQueryProcessor and LeviathanUpdateProcessor

Move the implementations from the isolated Evaluate() methods on ISparqlAlgebra and SparqlUpdateCommand into the relevant Leviathan processors. This will make the code more manageable and make it possible to make many methods virtual. This will allow people to override specific parts of the engine themselves without having to replicate large chunks of the engine.

## RDFa Parser rewrite

Based on the RDFa 1.1 specification it is clear that it would be best if the RDFa parser was rewritten from scratch in a modular manner that allows it to apply to a host language of choice. Provide modules for using it with HTML, XHTML, XML and SVG with the means to add additional ones in the future.

Rewriting the parser will also allow for efficiency and memory improvements to be made. The base parser architecture should be based upon RDFa 1.1 core and support extension points to allow for the extensions supported by different host languages.