

Help:Working with Nokia Developer Website Metadata and Ontologies

 Nokia Developer employs a collection of formally defined ontologies to define the metadata properties, values, and classifications used to describe and organize the many types of resources published and presented on the Nokia Developer web sites. These ontologies are defined using the [RDF](#) and [OWL](#) standards published by the [W3C](#). By using these formal ontologies, Nokia Developer is able to achieve a very high level of precision and data integrity, as well as employ inference to expand minimal, explicit metadata descriptions into much richer, comprehensive descriptions which minimizes application complexity and improves search and a broad range of data management functions.

Those not familiar with RDF and OWL and wanting to utilize Nokia Developer metadata are encouraged to first review the [RDF Primer](#) and the [OWL Primer](#). Understanding the basic concepts and features of RDF and OWL is essential to derive the greatest benefit from the Nokia Developer metadata.

Metadata Descriptions

Metadata descriptions of various resources, such as web pages, documents, tools, examples, mobile devices, etc. can be found throughout the Nokia Developer web space. Often these are provided within [RSS 1.0](#) feeds which list descriptions of a set of related resources, such as the most recently published documents about Qt, all Symbian devices, or the results of a particular search query. Most web pages also include metadata embedded within the web page.

Metadata descriptions are encoded in RDF/XML, and use metadata terms (properties, classes, controlled values, datatypes, etc.) defined in the Nokia Developer ontologies.

Several web services and portals are available for identifying resources and obtaining RDF encoded metadata descriptions. The search results from the Nokia Developer [Basic Search](#), [Expert Search](#), and [Expert Device Search](#) services all provide an RSS link icon at the top of the search results page which links to an RSS 1.0 encoding of the formal metadata descriptions of the identified query targets. Resource listings on most web pages will provide a similar RSS feed icon next to the listing title, providing metadata about the listed resources. To obtain the RDF description of a particular resource, for which the resource URI is known, the [URIQA](#) query portal can be used. Consult the **Help** links provided for each of these tools for further guidance.

Term URIs vs Term Labels

RDF makes a distinction between the identity of ontology terms, based on URIs, and the string labels associated with them, which may be presented to users when displaying metadata descriptions. This allows for the identity of the terms to remain constant and precise, even if the presentation labels change over time. This separation also allows for multiple variant labels in different languages without confusing which term is being referred to. The metadata descriptions themselves only contain the URIs of ontology terms. To obtain the presentation labels, one must consult the ontology specifications. Normally this is only necessary when generating human-readable presentations of the metadata. Automated processing of the metadata should rely exclusively on the URIs of the terms and should not base comparisons on presentation labels associated with those terms, as the labels may change or have multiple variants in different environments.

Nokia Developer Ontologies

The Nokia Developer ontologies evolve continually, and the OWL schemas defining those ontologies are updated regularly. To obtain the latest versions of all ontology schemas currently in use in the Nokia Developer web environment, one must reference the master root ontology schema <http://sw.nokia.com/schemas/nokia/ForumNokia.owl>. This root schema defines OWL import statements for all of the latest versions of all ontology schemas currently in use. One should be able to simply load this root schema into an OWL conformant system or tool, and have all of the current Nokia Developer ontology schemas imported. One may also parse the root schema to obtain the URIs of the latest schemas, and load them individually.

Note that the Nokia Developer ontologies include definitions of terms which are deprecated, and no longer in active use. These remain defined in the ontologies in order to support legacy processes and content, as and if needed, but should not be used for new applications. Deprecated terms are explicitly defined as belonging to the class [voc:Deprecated](#).

Ontology Summary Feeds

Often, a given application may not need to employ the full capability of an RDF and OWL conformant toolset, but may only need a few labels for some particular ontology terms. Or even when using an OWL toolset, one may only need a small subset of the Nokia Developer ontologies and not wish to load all of them.

To support more limited, targeted applications, Nokia Developer provides a collection of summary feeds, encoded in RSS 1.0 (RDF/XML) which are specific to particular resource types, or to particular controlled value sets. Please consult the [summary table](#) of available feeds to review the range of feeds available and to obtain links to the particular feeds.

