

LexEVS 6.0 CTS2 API

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LexEVS 6.x Programmers Links

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IMPORTANT - CTS2 Conformance Statement



NOTICE

The LexEVS 6.0 API does **NOT** conform to the [Official OMG CTS2 Specification](#)

Pre-CTS2 API Usage

IMPORTANT - CTS2 Conformance Statement



NOTICE

The LexEVS 6.0 Pre-CTS2 API does **NOT** conform to the [Official OMG CTS2 Specification](#) . The LexEVS 6.0 Pre-CTS2 API is an implementation of the CTS2 Service Functional Model, not the OMG CTS2 Specification. The LexEVS 6.0 Pre-CTS2 API **DOES NOT** assert to be Compliant to the OMG CTS2 Specifications.

Introduction

The LexEVS Pre-CTS2 API provides programmatic access to LexEVS 6.0 implementation of CTS 2 features and services. Developers can build custom applications, tools, and services that can make calls as per CTS 2 specification against LexEVS CTS 2 API.

Visit [Common Terminology Services 2](#) for services description, purpose and scope of CTS 2 specification.

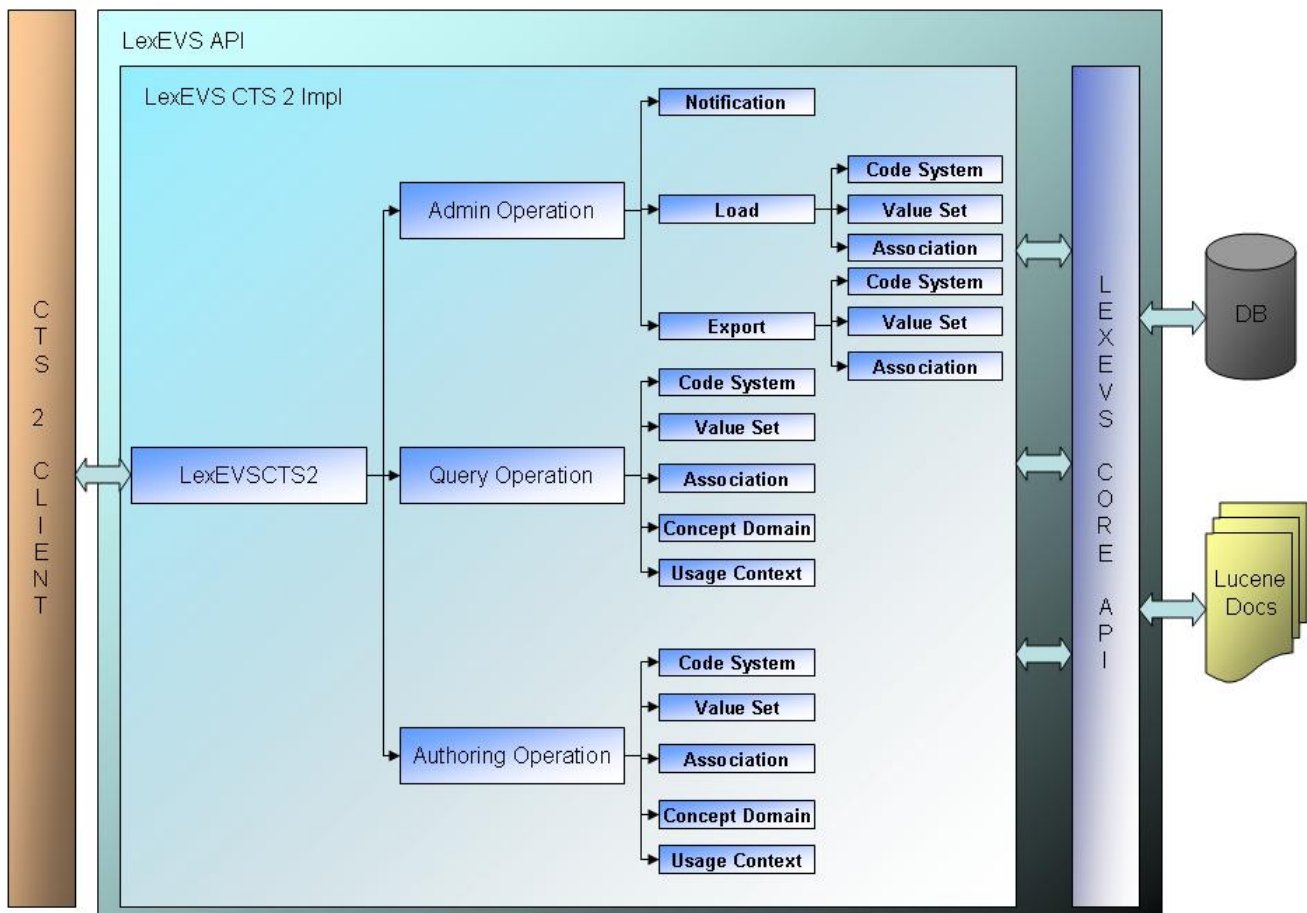
LexEVS Pre-CTS 2 API Architecture

The Pre-CTS2 API is split into three major operations:

- **Administration Operation:** This is a set of functionality that provides the ability to manage content as part of a terminology service. Administration functions include the ability to load terminologies, export terminologies, activate terminologies, and retire terminologies. These functions are generally protected and accessible by service administrators with appropriate authorization. Administration Operation also includes Notification service.
- **Query/Search Operation:** This is a set of functionality that provides the ability to find contents based on some search criteria. This includes restrictions to specific associations or other attributes of the terminology, including navigation of associations for result sets. This represents the primary utility for using terminology content in a number of application contexts.
- **Authoring Operation:** This is a set of functionality that provides the ability to create and maintain content. From a terminology service perspective, this would include the appropriate APIs to add, change, or delete concepts, associations etc. This would also include the processing of change events from various terminology providers.

Overview diagram depicting CTS 2 API architecture

LexEVS CTS 2 Implementation Architecture



LexEVS Pre-CTS2 Interface

`org.lexevs.cts2.LexEVSCTS2` is the main interface that external API can use to access all the functions and services available in LexEVS CTS 2

```
implementation.org.lexevs.cts2.LexEvsCTS2 cts2 = org.lexevs.cts2.LexEvsCTS2Impl.defaultInstance();
```

Using this interface, method calls can be made to get handle of three major CTS 2 operations i.e., Administration, Query and Authoring plus a few utility methods:

- **getAdminOperation()** - Returns LexEVS implementation of CTS2 Administration Operations.
- **getAuthoringOperation()** - Returns LexEVS implementation of CTS Authoring Operations.
- **getQueryOperation()** - Returns LexEVS implementation of CTS Query Operations.

- **getServiceInfo()** - Returns service provider information.
- **getSupportedSearchAlgorithms()** - Returns list of Search Algorithms supported by this LexEVS instance.
- **getSupportedLoaders()** - Returns list of Loaders supported by this LexEVS instance.
- **getSupportedExporters()** - Returns list of Exporters supported by this LexEVS instance.
- **getSupportedSearchAlgorithmNames()** - Returns list of Search Algorithm names supported by this LexEVS instance.
- **getSupportedLoaderNames()** - Returns list of Loader names supported by this LexEVS instance.
- **getSupportedExporterNames()** - Returns list of Exporter names supported by this LexEVS instance.

Administration Operation

The Administration Operation provides the ability to manage content as part of a terminology service. This includes the ability to load terminologies, export terminologies, activate terminologies, and retire terminologies. These functions are generally protected and accessible by service administrators with appropriate authorization. The Administration Operation also includes the Notification service.

`org.lexevs.cts2.admin.AdminOperation` is the main interface for all the administration operations.`org.lexevs.cts2.LexEvsCTS2 cts2 =`

```
org.lexevs.cts2.LexEvsCTS2Impl.defaultInstance();
org.lexevs.cts2.admin.AdminOperation adminOp = cts2.getAdminOperation();
```

Administration Operation APIs

Administration Operation is comprised of three major APIs outlined in the following sections.

Load Operation API

Load Operation provides ability to load complete or incremental update of Code System, Value Sets and Associations contents. It also provides capability to activate and deactivate loaded contents.

- [Load Operation API](#)

Export Operation API

Export Operation provides ability to export complete or partial contents of Code System, Value Sets or Associations.

- [Export Operation API](#)

Notification Operation API

Notification Operation provides ability to listen for various content-related events.

- [Notification Operation API](#)

Query Operation

The Query Operation provides the ability to query content that are available in the terminology services.

`org.lexevs.cts2.query.QueryOperation` is the main interface for all the query operations.`org.`

```
lexevs.cts2.LexEvsCTS2 cts2 = org.lexevs.cts2.LexEvsCTS2Impl.defaultInstance();
org.lexevs.cts2.query.QueryOperation queryOp = cts2.getQueryOperation();
```

Query Operation APIs

Query Operation is comprised of five major APIs outlined in the following sections.

Association Query Operation API

Provides an interface to query associations.

- [Association Query Operation API](#)

Code System Query Operation API

Provides an interface to query code system contents that are available in the system.

- [Code System Query Operation API](#)

Concept Domain Query Operation API

Provides an interface to query concept domain as well as any binding between the concept domain and the value sets.

- [Concept Domain Query Operation API](#)

Usage Context Query Operation API

Provides an interface to query usage context contents that are available in the system.

- [Usage Context Query Operation API](#)

Value Set Query Operation API

Provides an interface to query value set contents that are available in the system.

- [Value Set Query Operation API](#)

Authoring Operation

The Authoring Operation provides the capability to author terminology contents like concepts, value sets, concept domain etc., using LexEVS CTS 2 API.

`org.lexevs.cts2.author.AuthoringOperation` is the main interface for all the authoring operations.

```
org.lexevs.cts2.LexEvsCTS2 cts2 = org.lexevs.cts2.LexEvsCTS2Impl.defaultInstance();
org.lexevs.cts2.author.AuthoringOperation authorOp = cts2.getAuthoringOperation();
```

Following are the authoring operations that can be performed on terminology contents (like: code system, concept, value set, concept domain etc):

- **Create** - Capability to create a new entry. E.g., Adding new concept to a code system, adding new property to a concept etc.,
- **Edit** - Capability to edit attributes of existing entry. After each edit, the version of the changed entry will be changed. Entry state of each version will be saved.
- **Remove** - Capability to remove an existing entry. This operation will permanently remove entry from the system.
- **Versionable Changes** - Status, Effective Date, Expiration Date, etc are the Versionable attributes of an entity. This operation provides capability to modify versionable attributes of an entity. Ex : Status of a concept can be changed to 'Retired', deactivate a concept etc.

Authoring Operation APIs

The preceding authoring operations can be performed on following terminology contents:

- **Association**
- **Code System**
- **Concept Domain**
- **Usage Context**
- **Value Set**

These APIs are outlined in the sections that follow.

Association Authoring Operation API

Provides an interface to author association.

- [Association Authoring Operation API](#)

Code System Authoring Operation API

Provides an interface to author code system contents.

- [Code System Authoring Operation API](#)

Concept Domain Authoring Operation API

Provides an interface to author concept domain.

- [Concept Domain Authoring Operation API](#)

Usage Context Authoring Operation API

Provides an interface to author usage context.

- [Usage Context Authoring Operation API](#)

Value Set Authoring Operation API

Provides an interface to author value set.

- [Value Set Authoring Operation API](#)

CTS2 Usage

IMPORTANT - CTS2 Conformance Statement



NOTICE

In order to assert conformance to the Official [OMG CTS2 Specification](#), implementations must implement one of the supplied Platform Specific Models (PSMs) included in the Official OMG CTS2 Specification. Currently, the CTS2 Specification outlines an REST and a SOAP PSM.