

TextGrid Summit



Developers Workshop TextGrid Services



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NameService

Goal:

- Extract all names marked by `<tei:persName>` in a given TextGrid object

Implementation:

- Axis2 Web Service with SOAP 1.1 binding

Covers:

- Conventions
- Configuration Service
- CRUD
- Logging Service



Setup

- Create a new Java project in Eclipse
- Put the Axis2 User Library (= all Axis2 jars) in the project's build path
- Ensure the service can be deployed:
 - For quick & simple scenarios:
Make the Eclipse output folder a link into the Axis2 service repository.
 - For more complex scenarios:
Create WARs using Apache Ant or an Eclipse Wizard and deploy them manually onto the server.



The WSDL file specifies:

- where to reach the service
- which operations the service provides
- which bindings (SOAP 1.1/1.2, REST) the service supports
- which messages the service uses

TextGrid Conventions:

- document/literal encoding
- In the request message:
 - First child string element <sessionId>
 - Second child string element <logParam>



Axis2 Contexts

Axis2 supports a configuration hierarchy:

- Global / Service Groups / Service

At runtime accessible in *contexts*:

- Additional context level: MessageContext
- Contexts required for session management etc.

Service instance lifetime configurable

⇒ one service instance may serve several requests

⇒ cache data in the instance



Configuration Service

- Provides directions to the TextGrid Utilities
- The only middleware service for which TextGrid guarantees a stable endpoint
- The operation *getAll* returns a map of well known keys to service endpoints



TG-CRUD

- Create, Read, Update, and Delete TG objects
- Enforces authorization decisions by TG-Auth* based on the current session id
- TextGrid object = content + metadata
- Each object identifies by a stable URI
 - independent from its storage location, replicas etc.
 - URI issued by TG-CRUD upon object creation
- Content transmitted as base64 encoded UTF-8
- MTOM support will be transparent for non-MTOM-aware clients



Error Handling - Web Service Faults

- Faults \approx WS equivalent of Java Exceptions
- Each Fault contains, among others:
 - A message intended for human readers
 - A detail element intended for programmatic consumption
- The element specified as content of the respective fault message in the WSDL becomes the detail element's child.



Logging Service

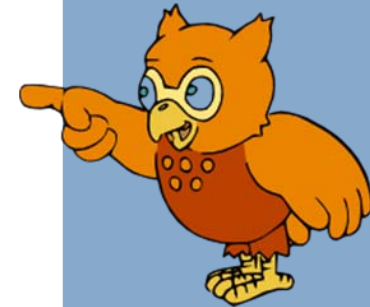
- Provides a central log for all services part of a workflow
 - Supports 5 log levels (*disabled - debug*)
 - TextGridLab has a view to inspect log entries
 - All information required to access the log service is provided in the request's logParam element.
 - ⇒ No need to look LogServ up via ConfServ!
- ! TextgridLogger class takes care of logParam, filtering by log level, and the actual calls of the logging service!



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Thank you!



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