Able to include software layer
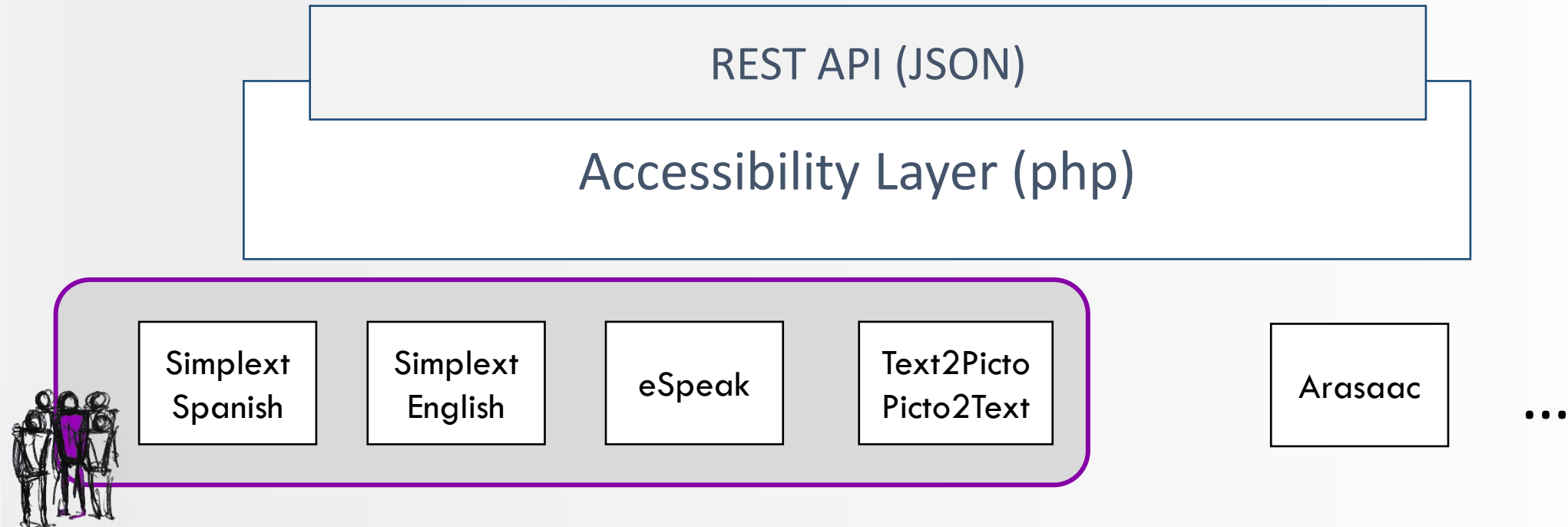
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Contents

- Accessibility Layer architecture and design decisions
- How to work with the Layer
- Demonstration
- The future: We want you to join us…

Architecture & Services

REST API (JSON)

Accessibility Layer (php)

| Simplext Spanish | Simplext English | eSpeak | Text2Picto Picto2Text | Arasaac | ... |

Accessibility and API development

- Developed using **PHP**
  - First version was implemented in **J2EE.**
- Available via **REST**ful **API**
- It does not support any threaded dialogues or retain any user data (to simplify the APIs and **Data Protection/Privacy/Ethical** issues)
- Accessibility Layer runs as a **Cloud Service** that is accessed through a **common API**
- The **Accessibility Layer** seamlessly **interworks with any Assistive Technology** or **device** options that the user is already using on their device.
- The **Simplext, Text2Picto/Picto2Text** and **Text2Speech** services is provided as Cloud web services (with light weight JSON) that
  - take **requests** (with suitable parameters) and
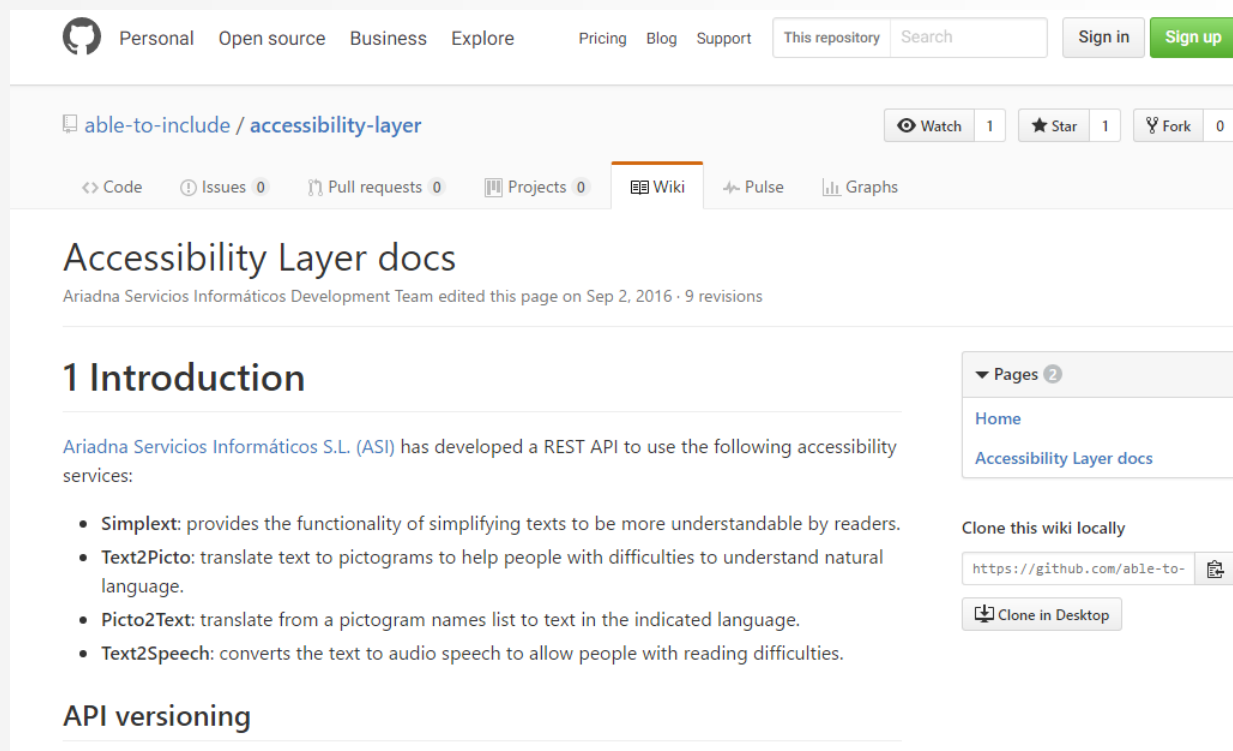 - return the appropriate **response.**

API Structure

https://github.com/able-to-include/accessibility-layer

- **Single access point**
  - PHP Class "Able" encapsulating the functions.
  - Set of functions split into several files providing access to the different services
- Mechanism to check the **health of services.**
- **Easy to deploy**
- **Does Not keep user's data**

Able.php	Version 2.3 - Picto2Text	5 months ago
Picto2Text.php	Version 2.3 - Picto2Text	5 months ago
README.md	Revert "Commit test"	11 months ago
Simplext.php	Settings file	9 months ago
Text2Picto.php	Error correction	6 months ago
Text2Speech.php	Settings file	9 months ago
arasaac.php	ARASAAC pictogram base	6 months ago
errors.php	API Version 1.1 - Parallel Text2Picto	10 months ago
settings.php	Version 2.3 - Picto2Text	5 months ago

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Able to Include

Available in GitHub

https://github.com/able-to-include/accessibility-layer/
http://al.abletoinclude.eu/doc/ (Documentation)

Status (health) of services

http://al.abletoinclude.eu/status/

english

Text2Speech online
Simplext online
Text2Picto (old) online
Text2Picto (parallel) online

spanish

Text2Speech online
Simplext online
Text2Picto (old) online
Text2Picto (parallel) online

dutch

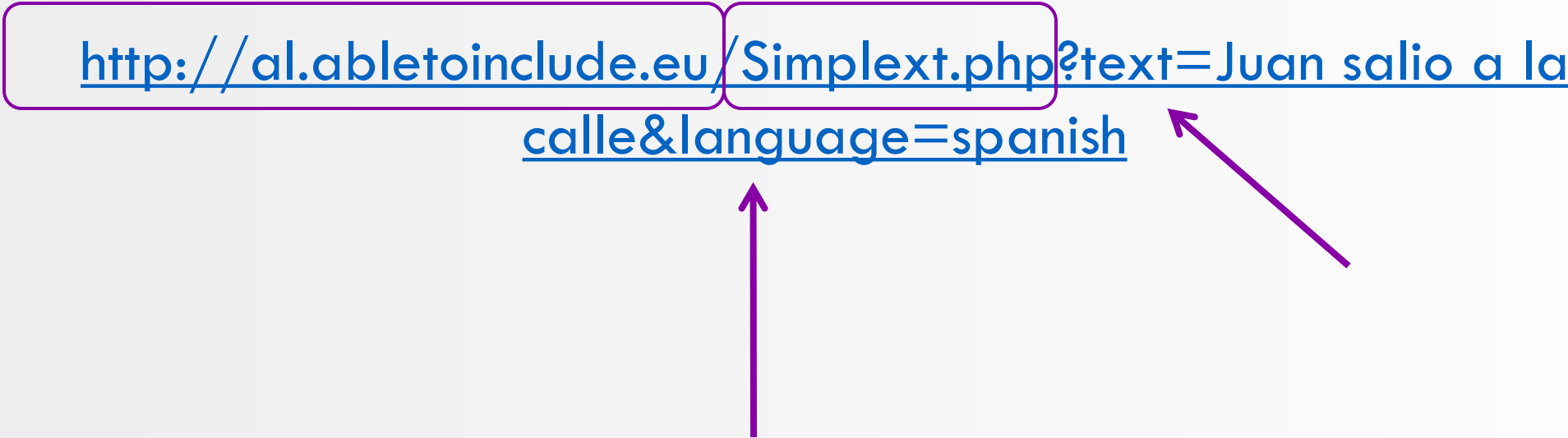Text2Speech online
Simplext (NOT IMPLEMENTED) offline
Text2Picto (old) online
Text2Picto (parallel) online

Working with the layer

1. Check the documentation
2. Prepare your application using our simple syntax

<Layer URL> + <Service Name> + Parameters

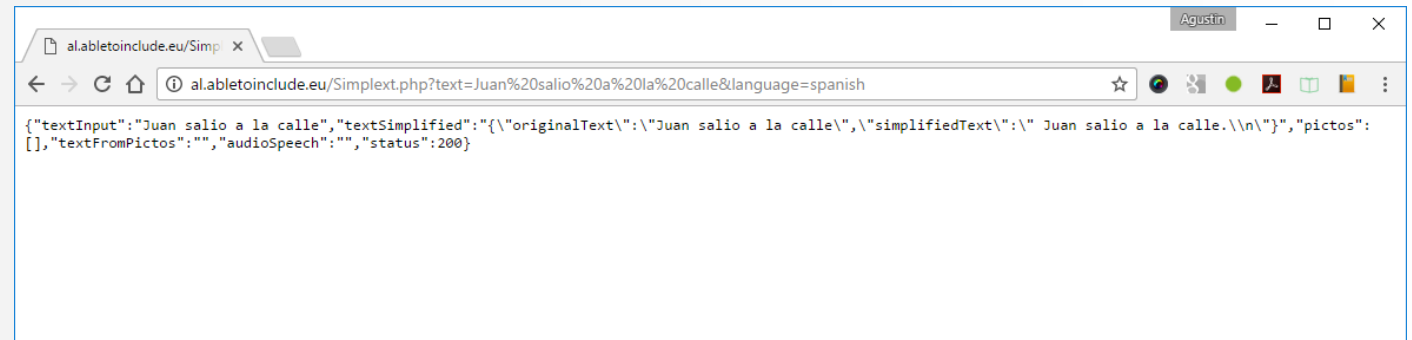http://al.abletoinclude.eu/Simplext.php?text=Juan salio a la calle&language=spanish

List of return codes

http://al.abletoinclude.eu/doc/#errors

Code	Error description
200	Everything OK
408	Exceed the maximum time
451	No InputText has been introduced
452	No Language has been introduced
453	No Picto database has been introduced
454	No InputText or Language has been introduced
455	No Inputtext, Language or Picto database has been introduced
456	No Language or Picto database has been introduced
457	No Inputtext or Picto database has been introduced
458	Language is not valid
459	Picto database is not valid
460	(new in version 2.1) Parallel indicator must be "true" or "false".

http://al.abletoinclude.eu/Simplext.php?text=Juan salio a la calle&language=Spanish

{"textInput":"Juan salio a la calle",
 "textSimplified":
    "{\"originalText\":\"Juan salio a la calle\",
 \"simplifiedText\":\" Juan salio a la calle.\\\n\"
 }",
 "pictos":[],
 "textFromPictos":"",
 "audioSpeech":"",
 "status":200}

The future

- We will continue adding services to the **Accessiblity Layer**
- Some other **Open Source developers** interested so far
  - Biblioeteca Technologies
  - Univ. Complutense de Madrid (IT department)
  - Padaone Games
  - …
- We will all add more examples of source code to **GitHub**
- Requests to add **security features**
  - SSL connections.
  - Traffic encryption.
- **We want you to join us…** - contact Agustín (agustin@gonzalez-quel.net)
  or me (john@mac.ie)

Able
to Include

Thank you!

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Question & Answers