

# Tools for Natural Language Processing

# GATE

## General Architecture for Text Engineering

Marián Šimko

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# Čo je GATE

- „... an infrastructure for developing and deploying software components that process human language“
- 1995
- open source
- University of Sheffield
- JAVA
- GATE, NTLK, R, RapidMiner

# Čo je GATE

- GATE Developer – IDE
- GATE Cloud – cloud
- GATE Teamware – web app
- GATE Mimir – search repo
- GATE Embedded – lib



GATE

- Applications
- Language Resources
  - ft-aircraft-crash-07-oct-2001.xml
- Processing Resources
- Data stores

Messages ft-aircraft-cra...

Annotation Sets Annotations List Annotations Stack Co-reference Editor Text

Investigations into the crash of a Siberia airlines Tu-154 over the Black Sea in 2001, with officials focusing on the theory that a wayward Ukrainian missile was responsible for the route from Israel, killing 78 people.

A delegation from Ukraine's defence ministry is due to arrive on Monday in the city where the investigation is centred, following calls on Saturday from Sergei Ivanov, Russian defence minister, for information on live missile fire during Ukrainian military exercises at the time of the crash.

Vladimir Putin, Russian president, was not satisfied with preliminary information supplied by Ukraine, according to Mr Ivanov, who said in a blunt statement that material provided by Alexander Kuzmuk, his Ukrainian counterpart, was "not sufficiently complete".

The comments by Mr Ivanov mark the strongest indication Russia is prepared to accept the view that a Ukrainian missile was involved. Russian authorities had initially backed Ukrainian denials of such a possibility.

The request for more information followed comments on Saturday by Vladimir Rushailo, head of Russia's investigation into the crash, that items of crash debris recovered from the Black Sea could not have come from the aircraft itself.

Mr Rushailo told reporters that the aircraft appeared to have been destroyed by a blow "of an explosive nature". Investigators have not ruled out the possibility that the aircraft was destroyed in a terrorist attack.

A team of Israeli experts arrived in Sochi on Sunday to assist in the enquiry. Relatives of the victims, most of whom were Israeli nationals, are also making their way to the scene of the investigation.

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Search in "ft-aircraft-crash-07-oct-2001.xml 00024"

Find:

Ignore case  Whole word  Regular Exp.  Highlights

Find first Find next Cancel

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[GATE](#) is... the Eclipse of Natural Language Engineering, the Lucene of Information Extraction, a leading toolkit for [Text Mining](#) used worldwide by thousands of scientists, companies, teachers and students comprised of an architecture, a free open source framework (or SDK) and graphical development environment used for all sorts of language processing tasks, including Information Extraction in many languages funded by the [EPSRC](#), BBSRC, AHRC, the [EU](#) and commercial users

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General Architecture for Text Engineering

Some projects: SEKT ([EC](#)); TAO ([EC](#)); NEON ([EC](#)); LarKC ([EC](#)); MC ([EC](#)); MUSING ([EC](#)); AKT; PrestoSpace; KWeb; MMKM; ETCSL; MultiFlora; Service-Finder; more.  
A sample of users: [British Telecom](#); [Imperial College](#); Hewlett Packard; OntoText; Perseus; Greenstone; NCSA; [AT&T](#). In the news: Grimes on Spock on [GATE](#)

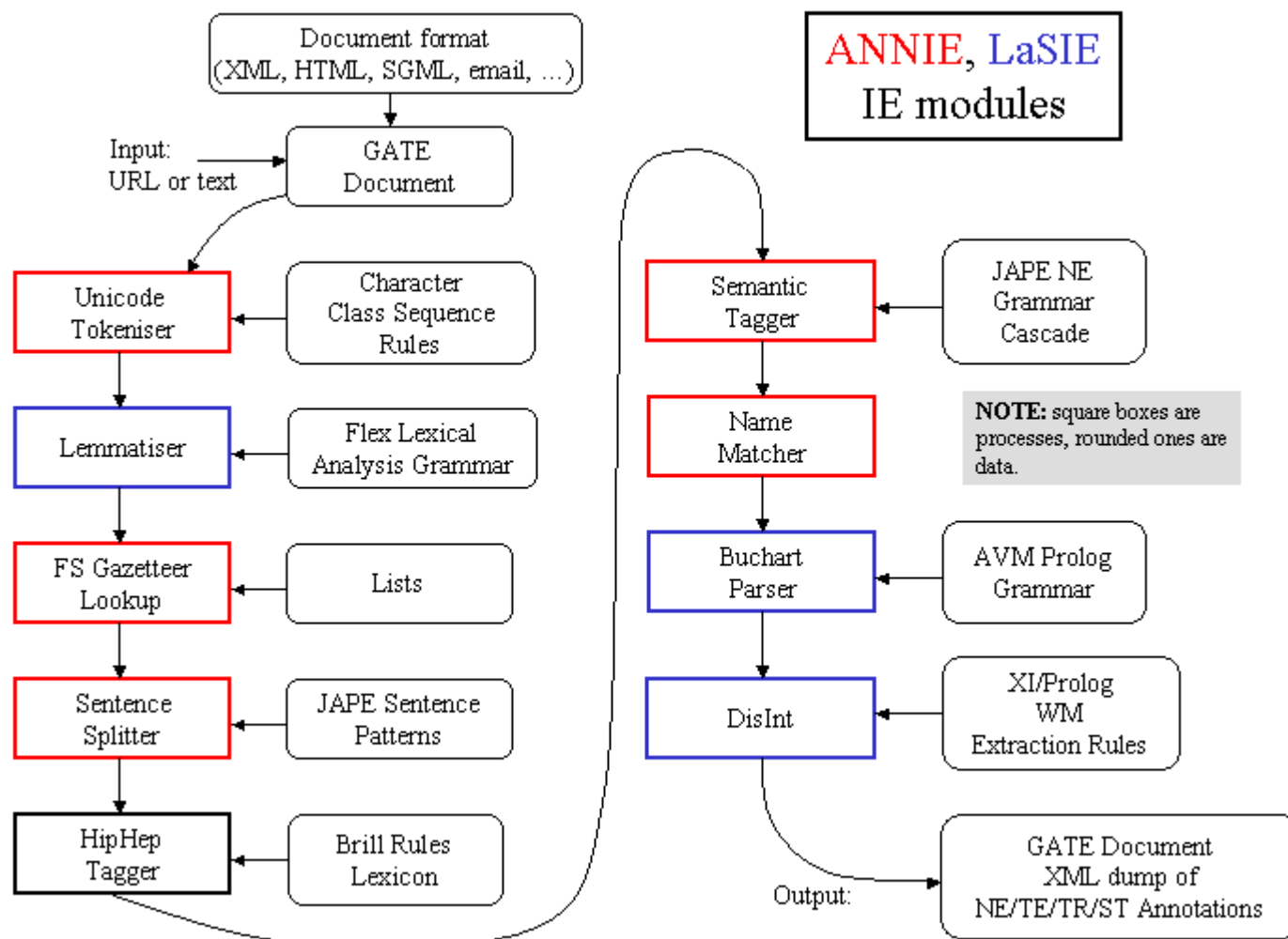
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# GATE pod lupou

- CREOLE – komponentový model
  - Language Resources
  - Processing Resources
  - Visual Resources
- ANNIE – basic text extraction pipeline
  - implementácia vybraných resource
- JAPE – jazyk pre reg. výrazy nad anotáciami

# ANNIE



# JAPE

Phase: UrlPre

Input: Token SpaceToken

Options: control = appelt

Rule: Urlpre

```
( ( ({Token.string == "http"} |
    {Token.string == "ftp"})
  {Token.string == ":"}
  {Token.string == "/" }
    {Token.string == "/" }
  ) |
  ({Token.string == "www"}
    {Token.string == "."}
  )
):urlpre
-->
:urlpre.UrlPre = {rule = "UrlPre"}
```



# References

- <http://gate.ac.uk>