



## Precognox is Java shop specialized in intelligent, linguistic-based search, text mining and big data solutions

As the future founders of Precognox, Karoly Kasa and Endre Jofoldi, started to work for NIH (National Institute of Health, USA) at the end of 2001 by developing ToxSeek toxicological and other search engines, as well as miscellaneous language tools. Based on our experiences we created Precognox in order to serve our increasing number of Hungarian and international customers at a higher standard.

We've been breathing search technologies for 10 years now. Constant development is a priority due to supporting the most efficient services for our partners and to search and apply the most

up-to-date techniques. We have senior members in our team who have been working with us for more than five years.

Precognox HQ and our main office is located in Kaposvar, a lovely city in Western-Hungary. The company has got an office in the capital, Budapest, too. Our system architects and Hadoop specialists under the guidance of our CTO represents the company in the heart of the country. Our presence in Budapest is vitally important, as we can take part in the sparkling tech life of the city - we are avid meetup- and conference goers, even we run the NLP (Natural Language Processing) meetup.

### Why search is so important?

*"Search simplifies interaction with data, because everybody knows how to search. You can explore, navigate and correlate data more easily."*

Wolfgang Hoschek, Cloudera, at Budapest Big Data Meetup

## Precognox Key Competencies

With multiple years of experience in [domestic and international development](#) we are contracted to develop **custom web applications and softwares**.

Our colleagues are frequent speakers at developer and business conferences. We keep

an eye on the recent developments in the industry and [the company's blog](#) won the third place two times in a row on the Hungarian [Goldenblog blog competition](#) in the IT category. Precognox is sponsoring and organizing the [Hungarian Natural Language Processing Meetup](#).

## Our development methodology

Our Project managers work in close connection with the customer during planning and executing the project. The implementation process can be based on a traditional or **agile (Scrum) methodology**. We create the **interface** with the **latest J2EEtools** (*JSF, JSP,*

*Primefaces, AJAX*) and the server-related components in object-oriented **Java** language.

We create a **working prototype** according to *customers' needs* in order to carry out quick changes when turning up inevitably.

[Contact us](#) if you want a **modern software solution**, easily accessible from anywhere around the world.

## What can we do for you?

### 1. Search

- Index-building, realization of complex relevance functions and swift text-search (*Solr – Lucene, Elasticsearch*)
- Search interface building (*PHP, JSP*)
- Post-filtering solutions - multiple facets (*clusters*)
- Complex-parametric Java metasearch server product (*parallel searches and filtering by clusters*)
- Structured database building from disorganized data
- Focused crawling (*cyclic walkthrough of thematic web sources*), then
- Text parsing, data retrieval, structured storing

### 2. Data mining

- Keyword extraction from free text (in English, German and Hungarian)
- Complex use of linguistic tools and frameworks (UIMA, GATE , OpenNLP, Stanford NLP tools, tools of Morphologic)
- Linked data, SKOS thesaurus building

### 3. Text mining and Knowledge Management

- Parallel and distributed text processing
- Text classification and clustering
- Tagging with relevant, descriptive keywords
- Similarity based search
- Semantic search
- Sentiment analysis

### 4. Professional Java application development

- J2SE, J2EE development
- Java threading, parallel processing and scaling
- Building and deployment (Jenkins, Ivy, Liquibase)
- Stress testing and Java profiling, optimization
- CAS, SSO (Single Sign On), Authentication through social media sites

### 5. Mobile development

- Application development for Android in Java

### 6. Web development

- Java JSP, JSF based, web application building according to MVC model
- Web service, Restful API creating
- Ajax technologies on user interface
- Browser expansion: Firefox plugin development

### 7. Hosting, scaling

- JBOSS, Tomcat clusters (within one server, or multiple machines)
- Apache, HAProxy load balancing
- Multi-level cache solutions (Squid)
- MySQL optimization
- Cloud scaling (Amazon)

- Map/Reduce processing (Hadoop, Cloudera)
- Coordination with ZooKeeper

## 8. Technologies, tools

- Solr, Lucene, Elasticsearch, IBM Omnifind
- Natural Language Processing tools (UIMA, GATE , OpenNLP, Stanford NLP tools, Morphologic tools)
- Apache, JBOSS, Tomcat (clustered)
- Java, J2EE
- HTML, CSS
- DHTML, Javascript, Ajax
- SWING, Webstart
- Database management(MySQL, Postgres, Derby, and any JDBC)
- Oracle database, PL/SQL
- ChiliProject and Jira project management system
- Vagrant
- Chef
- SonarQube: to manage code quality

## Contact



**Endre Jofoldi – CEO**



**Karoly Kasa - CTO, Development**

For a complete list of our customers see: <http://precognox.com/customers>

Contact us at: <http://www.precognox.com>

Or at twitter: <http://twitter.com/precognox>