



**Tovek Server is a server application enabling effective processing of a large volume of structured as well as unstructured information. It makes it possible to automatically index the data from various information sources, intuitively search, extract required entity types from text, deliver information in real time and automatically sort information to defined categories.**

## Description

**Tovek Server enables the following basic and service features:**

### Main features

- ▶ Indexing
- ▶ Search
- ▶ Profiling
- ▶ Categorization
- ▶ Entity Extraction
- ▶ Metadata
- ▶ Visualisation

### Service features

- ▶ Advanced Security
- ▶ Statistics, protocols
- ▶ Locales (Language modules)

## Benefits

### Unified access to various information sources

Tovek Server enables to process a wide range of document types and formats from one place without demanding integration of information sources. Users can in one environment easily and quickly process information from various databases, file system, e-mail server, web pages, external medial or economic databases. A very important component of the system can be the shared experience and knowledge of company employees.

### Automatic delivery of relevant information

The profiling function continuously processes all new documents. Each user has access only to those documents which correspond to his/her interest and which the user is authorised to see and process. Thanks to real-time architecture is possible to process new documents without interrupting the work. New information can be delivered through web interface, RSS, e-mail client, SMS or PDA.

### Customization to specific requirements

Modularity of the whole system enables to configure Tovek Server precisely according to the user's requirements the user interface can be modified by the script language. The information can be accessed either by web services or by client applications. Tovek Server can be implemented into existing information systems, into intranet or into portal solutions. Tovek Server enables to define a wide range of security rules for access of users.

### Multilingual search

The full-text query can consist of more partial queries in defined languages. Each query can then be used for documents in several languages while the search results are combined into one result list which can be further processed.



---

**Typical areas of use**

Tovek Server is suitable for implementation in organizations which process large volumes of information and where information is handled by larger number of users. Tovek Server is becoming an integral part of information systems in commercial companies as well as in the area of government administration.

---

**Typical users**

All types of users within the organization can benefit from using Tovek Server. They can easily, quickly and from one environment find and then use information for solving tasks. Common users do not need to possess any special training or skills and can easily access Tovek Server for their routine work. Expert users who wish to process advanced functions as well as administrators undergo specific training organized by Tovek.

---

**Indexing**

The data Indexing is performed in batches and supports all common file formats. The result of the indexing process is a new or updated full text collection. Using the selectable input modules the users can do automated indexation of:

- ▶ file system
- ▶ web pages
- ▶ data in relational database
- ▶ data stored in MS Exchange, MS SharePoint and IBM Lotus Notes
- ▶ social network
- ▶ specific types of information sources in original formats delivered by suppliers

Remote indexing enabling saving of data sent by clients to Tovek Server. It enables for example manual inputting and updating data from Tovek Tools visualisation interface or involving Tovek Server into systems for managing data flow.

---

**Search**

The Search function enables users within one environment an intelligent search of documents stored in various information sources. The advanced functions offer different methods of search, including:

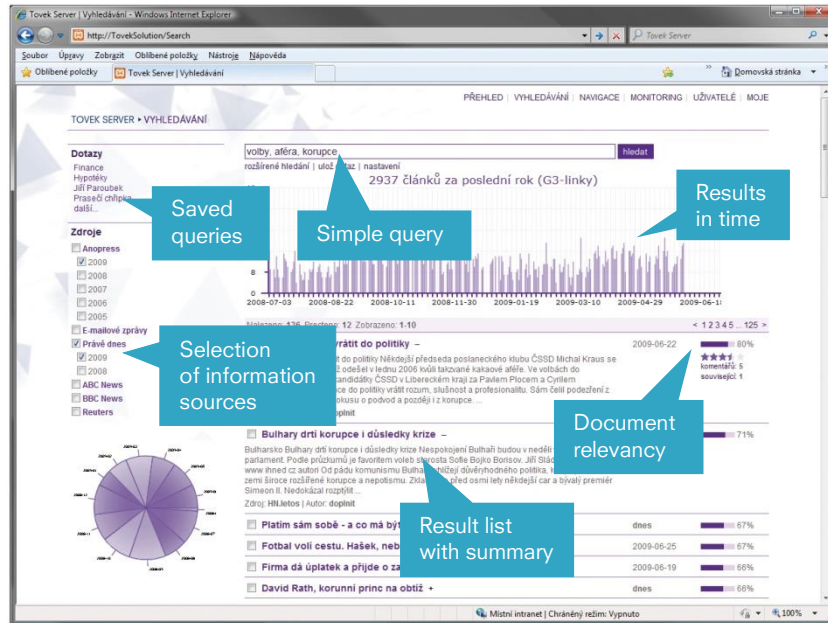
- ▶ document relevance calculation based on advanced query language
- ▶ ranking of documents according to various criteria
- ▶ automated document clustering by its content
- ▶ simultaneous multilingual search
- ▶ automated document annotation
- ▶ similar document finding
- ▶ free text querying
- ▶ parametric search that can subdivide search results according to the values of single data fields and allows users quickly and intuitively refine the search query

The user can search documents using the web interface or the search function can be integrated into any application using Web Services.

The expert users can use client desktop application Tovek Tools.



Searching in web browser for common users who place simple queries



## Knowledge base

Knowledge base is intended for storage of queries and further entries independently on projects and their easy sharing among the Tovek Server users.

Updating and storing queries into the knowledge base is treated with respect to the work of possible more users and access rights management.

Some of the queries can be marked as topics and so then can be called by their names in queries.

## Monitoring

Monitoring function provides automated and personalized (for an individual user and/or for a group of users) monitoring of information sources in real time. It's based on beforehand defined profiles (queries) corresponding with users interests. Monitoring results (alerts) are delivered to a user on-line.

The profiling results are stored in a relational database by default. From this database the results are displayed through a web client or in RSS format.

Documents can be delivered:

- ▶ individually (via e-mail, SMS)
- ▶ as a pre-defined structured monitoring

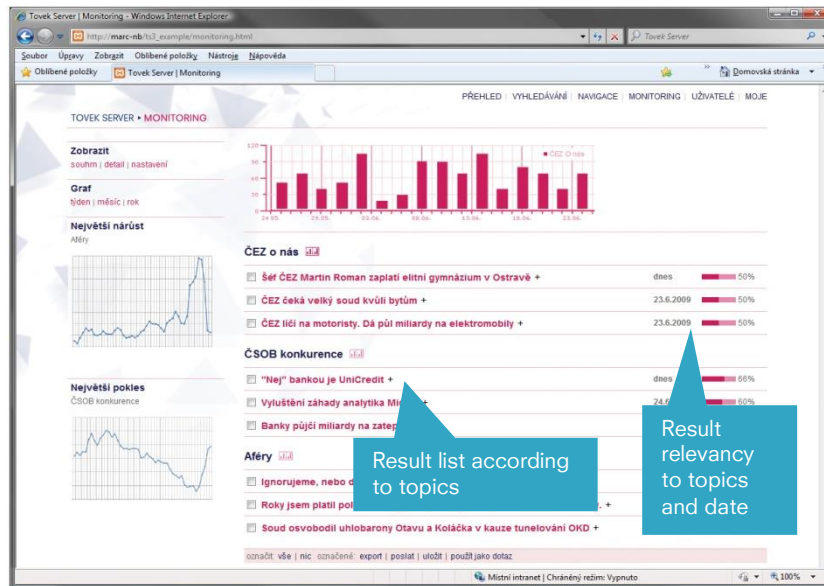


TOVEK

PRODUCTS

Tovek Server 6

Automated delivery of new information in web browser according to the selected topics

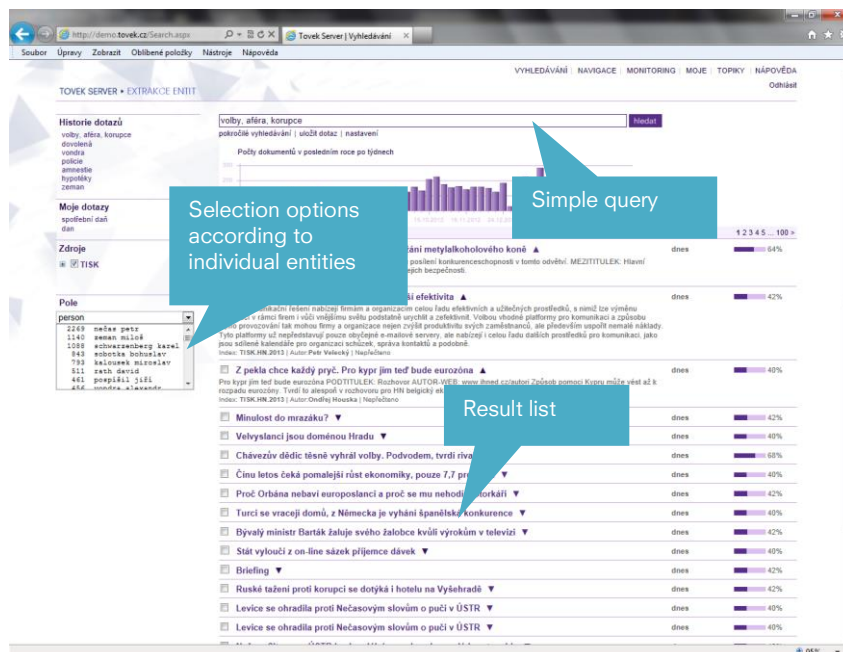


## Entity Extraction

Entity Extraction enables marking of specifically defined data groups (entities) – for example e-mails, phone numbers, names, geographical names, web pages, addresses, number figures etc.

The main added value of entity extraction is a possibility to obtain the list of all occurrences of defined entity in a document and further work with them.

Searching according to the entities





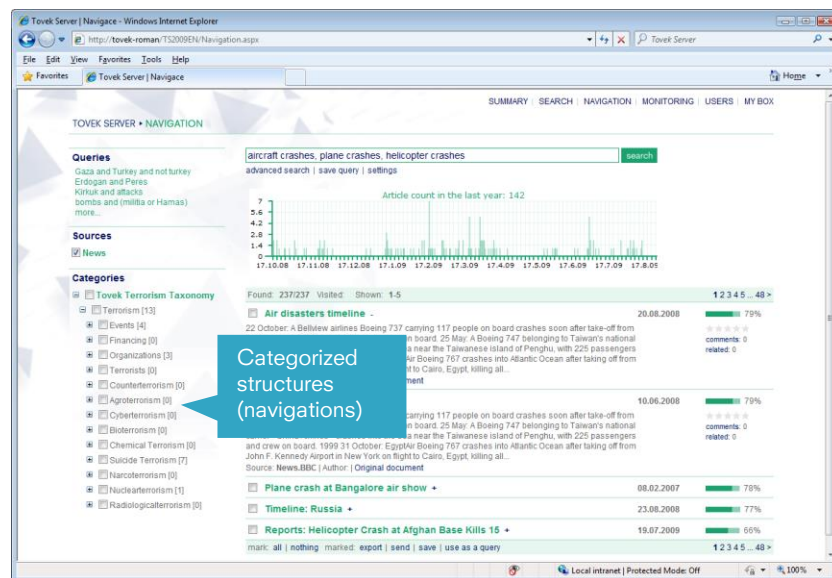
## Categorization

The Categorization function enables automatically sort the indexed documents into defined categories in real time. One document can be put into more categories. More taxonomies (categorized structures) can be defined and combined. Categorization can be used for filtering the search results into categories or for navigation in the information sources. Individual categories have fixed names but the criteria of their fulfilment can be changed. Content of selected fields can be also used as category.

Categorization can be:

- ▶ automated – based on query (simple or structured)
- ▶ automated – based on metadata

Searching using categorisations is different from common searching by offering more categorized structures (navigations) to user – information in context



## Visualisation

This module enables to visualise content of selected documents – based on entity extraction and also to depict content of structured data (for example database) after the creation of special structured source where objects and connection between them are defined. Icons of the objects can be changed according to their meaning.

Also own objects can be added in to the diagram. These objects can be assigned to query and connection. Elements can be formatted.

Objects can be expanded from various sources while it's possible to define which objects should be added and so combine information from various sources (structured and unstructured).

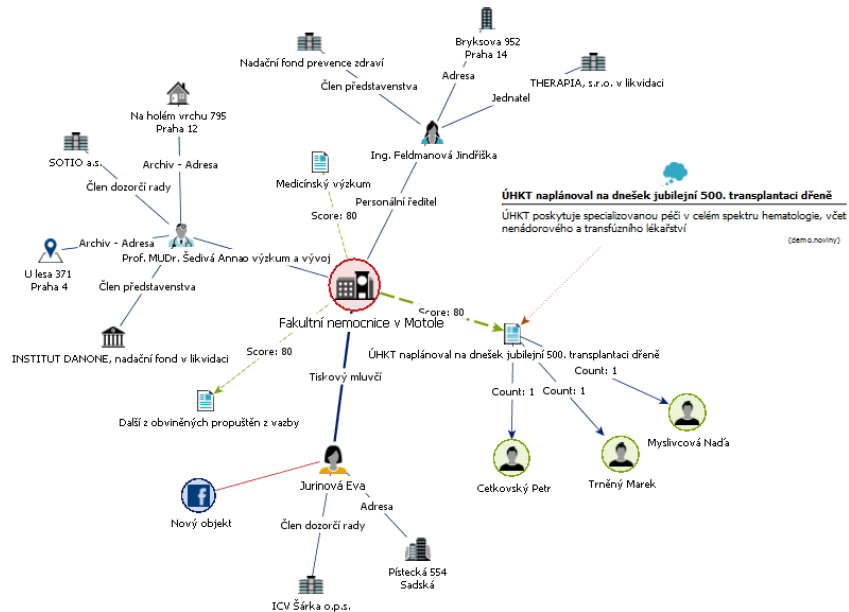
It is also possible to find shortest path between visualised objects which can come from more different sources. What's more, it enables specifying type of the link between the objects in order to find shortest and most relevant path.

Text can be also added into the diagram and also possibly with document metadata. Created diagrams can be exported into the product IBM i2 Analyst's



Visualisation of structured source in combination with documents from unstructured source, extracted entities and added text, object and connection

Notebook.



## Security

Tovek Server allows setting a number of security rules both for individual users and groups of users. The Security module provides user authentication, encrypted communication between user and server as well as filtering of results respecting user rights on the document level. Access rights are taken from the original repositories where documents are stored e.g. Active Directory.

System modularity enables adapting to the individual needs and easy integration into existing security architecture.

## Protocols

The system generates protocols that can be consequently statistically evaluated. It is possible to monitor the Tovek Server usage by single users, an individual work of users and frequency of their accesses to the system. It's also possible to evaluate what information is the most widely read, what information is the latest, etc.

## Languages

Tovek Server enables data processing in different languages.

## Requirements

Tovek Server is quite flexible and can be easily customized to the technological system used by the customer organization. Tovek Server does not require installation of any additional software or hardware. The system functions with operation systems Microsoft Windows and Linux.

## Contact

TOVEK, spol. s r.o.  
Chrudimská 1418/2, 130 00 Prague 3, Czech Republic  
Telephone: +420 222 728 129, Fax: +420 222 728 103  
E-mail: [info@tovek.com](mailto:info@tovek.com), Web: [www.tovek.com](http://www.tovek.com)