# Dictionary Writing Systems

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slovník SKO ANGLICKÝ I ANGLICKO ČESK

VŠEOBECNÝMI I ODBORNÝMI K DÍLU ČESKO-ANGLICKÉMU,

s úplnou výslovnosti a krátkou MLUVNICÍ ANGLICKOU.

Karel jonáš.

DICTIONARY

BOHEMIAN AND ENGLISH

ANGUAGES.

WITH SUPPLEMENT TO THE FIRST PART.

CHARLES JONAS.

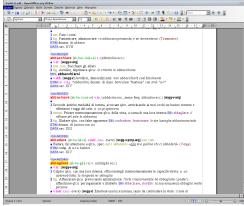
Naklidem "SLAVIE", Racine, Wis.

1876.

1876.







#### **Dictionaries**

- digital formats
  - typesetting
  - electronic versions (CD, web)
  - further processing in language applications
- no widely used standard
- custom SGML, XML formats

## TEI: Text Encoding Initiative

- founded in 1987
- guidelines for the digital encoding of literary and linguistic texts
- publishing TEI Guidelines (1st version in 1990)
- current version P5 Guidelines published in 2007
  - new support for multimedia, graphics, people and places data
  - interoperability with other XML formats
- modular, customizable
- TEI Lite "designed to meet 90 % of the needs of 90 % of the TEI user community".

# XDXF: XML Dictionary Exchange Format

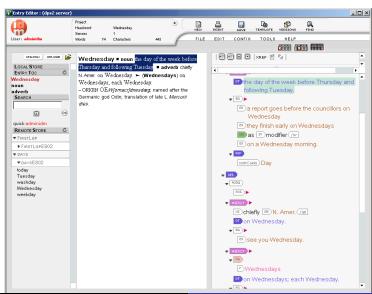
- founded in 2004 to unify formats of freely available dictionaries
- supported by the most of open-source dictionary viewers
- over 300 bilingual and explanatory dictionaries

### LMF: Lexical Markup Framework

- ISO 24613:2008
- developed since 2003, published in 2008
- "representing data in lexical databases used with monolingual and multilingual computer applications"
- main objective is machine processing and data exchange
- modular, extensible, connected with other ISO standards
- extended information: one XML tag with name and value

#### **IDM DPS**

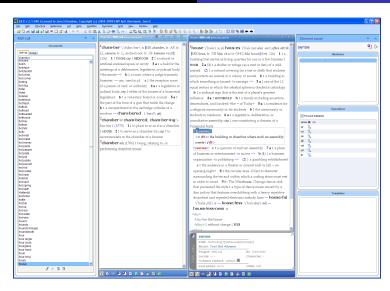
- commercial, developed by IDM (France)
- "suitable for monolingual and bilingual dictionaries of any type and can also be used to produce a thesaurus, a biographical dictionary, a dictionary of quotations or an encyclopaedia"
- used by Oxford University Press and Cambridge University Press
- client-server application, both parts Windows only



- independent modules:
  - Central Database/Repository
    - documents stored in XML format, optionally with DTD
    - implemented in Oracle, MS SQL, or PostgreSQL
  - Authoring XML Editor
    - client application for authors
    - showing tree structure of XML document and XSLT generated preview
    - download the documents for off-line editing
  - Search Engine
    - custom query language, XML structure, regular expressions, lemmatization...
  - Work Allocation and Workflow Manager
    - managing team work, batch editing
    - Microsoft Project import/export
  - Proofing Tool
    - generate PDF for proofing
    - Adobe InDesign support for automatic corrections import

### iLEX

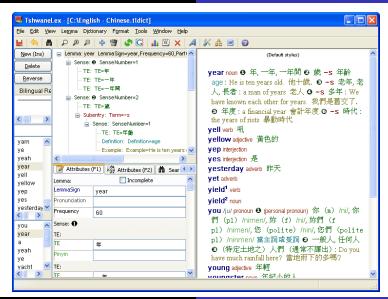
- commercial, developed by Erlandsen Media Publishing (Denmark)
- current version 2.2, January 2010
- price: 400 to 7000 EUR
- developed in Java, supported on Windows, Linux and MacOS
- client-server or standalone application
- used by Royal Swedish Academy of Sciences to compile Svenska Akademiens Ordbok



- built-in XML database, own query language and XQuery
- setting stored as a XML document in special database
- user accounts and permissions controlled by database
- output defined by XSLT, XSL:FO or own format
- customizable user interface, selectable panels
  - document XML strucure, editing form, entry preview, statistics, links, multimedia library, ...
- extensible with many plug-ins
  - spellcheck, lexicography, SmartEdit, workflow, changes tracking,...

# TLex (TshwaneLex)

- commercial, developed by TsdwaneDJe (South Africa)
- current version 5, October 2010
- price: 150 to 1900 EUR
- supported on Windows and MacOS
- single user or client-server application
- important clients include Oxford University Press, Pearson/Longman, or Macmillan Publishers

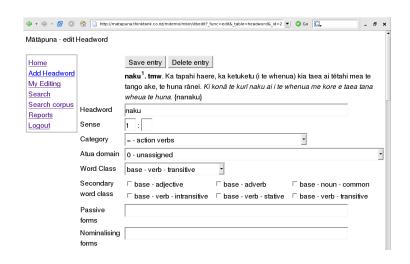


- document structure set by DTD or graphic interface
- data stored in custom format
- import from XML or CSV, export to XML, HTML, MS Word, RTF, Adobe InDesign
- editing in forms or output preview
- localizable user interface
- multimedia support
- tracking changes and comparing document of several users
- integrated corpus tools

### Mātāpuna

- free, open-source, developed by Thinktank Consulting (New Zealand)
- not developed since 2005
- web application, programmed in Perl, data stored in PostgreSQL, export to XML
- designed for Maori dictionary project
- document structure can be changed only by source code modification
- workflow and statistics
- data checks (spellcheck, defining dictionary,...)
- 2004 Computerworld Excellence Award for the Use of IT in Government

IDM DPS iLEX TLex **Mātāpuna** Glossword DEB II



#### Glossword

- free, open-source, developed by Dmitry N. Shilnikov
- developement canceled in 2009, revived in 2010 by Glossword.biz Team
- web application, programmed in PHP, data stored in MySQL
- import/export XML and CSV
- creating explanatory dictionaries, glossaries, references
- document structure can be changed only by source code modification
- multiple dictionaries with one installation
- built-in editor to customize output templates
- feedback form for each entry
- virtual keyboard with special characters



### **DEB** II

- free, open-source, developed by NLP Center, FI MU
- data stored in Oracle Berkeley DBXML, programmed in Ruby
- client-server architecture
- libraries and modules for dictionary application developement
  - data storage and manipulation
  - user and dictionary management, cooperation
  - import, export, backup
- client: GUI, web application, API
- more than 10 projects dictionaries, ontologies, lexical databases
  - DEBDict general dictionary browser
  - DEBVisDic wordnet editor and browser
  - Praled Czech lexical database editor
  - FaNUK dictionary of family names in UK
    - ...

