TshwaneDJe

Human Language Technology

http://tshwanedje.com/





TED - TshwaneLex Electronic Dictionary

Publish your dictionary as a CD-ROM or downloadable product

The TshwaneLex Electronic Dictionary software module is a complete, customisable solution for publishing your dictionary electronically – as a CD-ROM, or for sale or download on the Internet, or both. The "base package" provides all the functionality of a

modern, user-friendly Electronic Dictionary, but can be fully customised for the desired 'look and feel', branding (e.g. logo), dictionary content and language(s) of your product. This provides a highly cost-effective solution for creating a professional Electronic Dictionary product, obviating the need for the kind of expensive custom-developed solutions that have traditionally been required in the past.

Fully Customisable 'Branding'

All aspects of the "look and feel" of the Electronic Dictionary can be customised for each product; e.g. your own logo, icons, product name and so on.

Full Localisation Ability

The entire interface of your Electronic Dictionary can be translated to, and made available in, any language. The default language may also be changed. Thus for example, the interface of a bilingual French – English dictionary could be available in both French and English, with French being the default. Instant "real-time" switching of the language allows the interface language to be changed by the end-user without even restarting the application.

Dynamic Metalanguage Customisation

Taking localisation further, the metalanguage of the dictionary *content* may also be localised. The user may opt to see labels like "noun" or "verb", or words such as "SEE" in cross-references, in the language of their choice. For instance, a bilingual Zulu – English dictionary could allow the user to view such labels in either Zulu or English, depending on their mother-tongue or preference.

Multimedia (Sound, Images, Video)

Part of the standard functionality of TshwaneLex is the ability to have images and sound recordings (e.g. pronunciation recordings) in dictionary entries; this carries through to the Electronic Dictionary software.



Microsoft Word Integration

The Electronic Dictionary integrates into Microsoft Word, and will automatically perform a search for the word at the current cursor position; if found, it displays a miniature version of the article (headword plus Translation Equivalents) in an overlay window. When these "mini" results are clicked on, the full article is opened in the main Electronic Dictionary window. This functionality also extends to Outlook when using Word as the e-mail editor.

The screenshot to the left shows this functionality in a bilingual Swahili – English Electronic Dictionary.

Searching: Fast and Customisable

Smart pre-indexing allows for high-speed searching even with large datasets. Further, the ability to configure a search script using the built-in scripting language of TshwaneLex allows the search behaviour to be customised for language-specific search functionality (e.g. decomposition-based searching for Nguni languages).

Focus on Speed, and Support for Large Dictionaries

The use of smart indexing for searches combined with "memory-mapped I/O" for data accessing allows even large dictionaries to load quickly and to be searched quickly.

"Translation Equivalent Fanouts"

[Optional] For a bilingual dictionary, this feature allows the end-user to automatically display entries that are related to the current one by means of a shared Translation Equivalent (e.g. "doctor" in the screenshot below).

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mganga (noun) (1/2) -ganga doctor, medical person

daktari (noun) (5/6, animate) doctor || daktari anampima mgonjwa the doctor examined the patient || daktari wa meno (noun) (5/6, animate) dentist
tabibu (noun) (1/2) healer, doctor, clinic officer
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"Linked View"

[Optional] For a bilingual dictionary, this feature allows the end-user to automatically display entries on the other side of the dictionary that are related to the current one by means of a Translation Equivalent treated as a headword on that side.

Expanded View

For a bilingual dictionary, the end-user may choose to see both sections of the dictionary simultaneously in a split "side-by-side" view, or to "expand" a specific section, giving more space.

Automatic / Downloadable Updates

[Optional] In addition to a traditional application installer, the TshwaneLex Electronic Dictionary software also includes the facility to be able to automatically update itself over the Internet. This is divided into two "levels": Updates for the software itself, and – *optionally* – updates for the dictionary content. Updates may also be tied to the registration key / license key system (copy protection), e.g. it can be configured to fail if an end-user attempts to update from a copy of the software that does not have a valid license.

Security

In a TshwaneLex Electronic Dictionary, dictionary data is protected by default with encryption, thus protecting it from potential "intellectual property thieves". A license key copy protection system also prevents casual piracy.

Customisable Styles/Colours

The Styles system of TshwaneLex allows the appearance (e.g. colour, font, surrounding punctuation) of each field in a dictionary to be configured. Preconfigured "sets" of styles, or "views" of the data, may also be prepared for the end-user to choose between, e.g. "advanced" or "novice" views. Different fields may also be visible/hidden in different views.

Popup Help

Each field type in the dictionary may optionally be linked to a popup "help screen" that is displayed to the user when clicking on that field. This behaviour is scriptable using the scripting language built into TshwaneLex, allowing the popup help screen to exhibit some "intelligence" – e.g. different information could be displayed depending on the *value* of a particular field (e.g. "noun" vs. "verb").

"Taskbar / System Tray Icon" (Windows)

An icon in the System Tray provides convenient access to the Electronic Dictionary for end-users. A configuration option also allows the Electronic Dictionary software to be loaded into memory at start-up time, allowing the dictionary to be immediately available with no delay.

Visit the TshwaneDJe HLT website (http://tshwanedje.com/) for further information, or contact info@tshwanedje.com.