ESUG 2008 — Innovation Technology Awards

Citezen, a nicer bibliography toolkit

Project name	Citezen
Author & Affiliation	Damien Pollet — REVEAL, University of Lugano, Switzerland
Homepage	http://www.squeaksource.com/Citezen.html
Smalltalk Dialect	Squeak
License	Open-source (MIT)
Keywords	Bibliography, Database, Seaside, Pier

Motivation

Bibtex is a powerful tool and it is widely used to manage a publication database, and automatically generate citations and reference lists in scientific publications. And it is actually quite nice to use, as long as you only need to do just that.

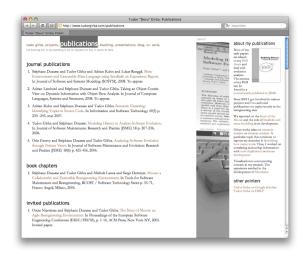
Unfortunately, scientists often have all sorts of funny ideas like maintaining their web page, sorting their publications by type, then by reverse date, with the title in bold, while omitting the publications that are in the database but shouldn't be displayed because they are not official yet. When Bibtex hears that, it suddenly becomes very frustratingly uncooperative.

This is why Citezen was created, as a replacement for BibTEX, except much more flexible and powerful and object-oriented way.

Features

Input formats Citezen's fully featured .bib parser for database files will handle the various syntaxes of authors list as well as the strange things like @string(). It also understands LTEX's .aux files to select bibliographic entries.

Model Citezen understands the semantics of the Bibtex database format: it represents authors as objects, and will never flatten macros and cross-references, unless instructed to. Using standard Smalltalk code, it is possible merge or intersect databases, or to sort and select entries from a database.



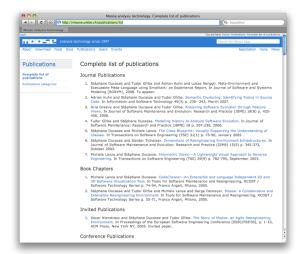


Figure 1: Citezen in use on the web, generating the list of publications of Doru (left) and related to Moose (right).

Output formats Citezen can generate reference lists in HTML, plain text, or LTEX's .bbl format for inclusion in a document. It can also regenerate a .bib file from sorted or combined databases.

Configuration Bibtex's style files are procedural and inflexible. Citezen replaces it with a system of fill-in phrases that expresses how to arrange the title, authors, independently of the output format. In particular, the same phrases are used to generate .bib files, which means fields will be sorted in a sensible order, i.e. like a formatted bibliography rather than by alphabetical order of the field names.

Seaside and Pier

Citezen can be used in as a component in Pier, the web content management system for Seaside. This is very nice to dynamically generate a professional looking list of publications from a Bibtex file. Citezen is used on the web¹ by Dr. Tudor Gîrba for his own website, then on the website for the reengineering platform Moose, as shown in figure 1.

¹http://www.tudorgirba.com/publications — http://moose.unibe.ch/publications/list