Typesetting Bibliographies Compliant with the Standard ISO 690 in LaTeX

BachoTeX 2017
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ISO 690 Standard

- Information and documentation – Guidelines for bibliographic references and citations to information resources
- Published by International Organization for Standardization (ISO)
- One of the most frequent guidelines for citations and references
ISO 690 Editions

History


ISO 690:2010

Terminology

*Defined in the most recent edition of ISO 690:2010*

- **citation**: indication within the text or other form of content of a relevant reference
- **reference**: data describing a resource or part thereof, sufficiently precise and detailed to identify it and to enable it to be located
Terminology by example

Defined in the most recent edition of ISO 690:2010

„[…] aj netriiviálne deduktívne hry môžu byť vyriešené softvérovým nástrojom [1], čo vedie k záveru […]“

What did change in the ISO 690 standard

Throughout the editions

- New kinds of information resources
  - cartographic materials
  - audiovisual works
  - etc.

- Explicitly stated, that this International Standard does not prescribe a particular style of reference or citation + consistency principle etc.

- Some terms missing, eg. *chapter*

- More detailed description of the principles for creating bibliography entries
  - changed or added
Order of elements

*The usual order of elements in a reference*

- name(s) of creator(s) if available
  - date in case of the *author-date* is being applied
  - title of the resource
- medium designation if necessary
  - edition required if the item is not a first edition
  - place the most prominent
  - publisher the most prominent
Order of elements

The usual order of elements in a reference

date in case of the author-date is being applied it is not repeated unless a fuller date is necessary

series title and number

numeration within the item

standard identifier(s) ISBN, ISSN, DOI,…

availability access or location information

additional information pertinent for the item
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Already existing solutions
Or what was missing…

czechiso.bst
*.csl-based
OPmac-bib plainTeX

BibLaTeX
Original implementation of biblatex-iso690

By Michal Hoftich

- created in 2011
- by Michal Hoftich
- build on top of the BibLaTeX package
- influenced by the Czech national interpretations
- https://github.com/michal-h21/biblatex-iso690
Original implementation of biblatex-iso690

By Michal Hoftich

State of the art

• adhered to out-of-date editions of the standard
• incorrect order of elements
• (redundant/missing) punctuation
• missing some types of resources
• missing some required elements
• missing creator secondary responsibility
• obsolete and deprecated code

1https://github.com/michal-h21/biblatex-iso690
Reimplementation

Of the package \texttt{biblatex-iso690}

Macros, commands and definitions

- printing out the elements in the correct order
- parsing and formatting of the bibliography fields
- multilingual references
- further adjustable

From the user perspective

- more entry types and fields
- more localisation strings
- more package options
Printing out the elements in the correct order

*Original and up-to-date version comparison*

…Title [online]. **Series number.** Place: Publisher, 2016 [visited on 2016-11-08], pp. 31–47. **Series title.** Url: <path>. ISBN

↓

…Title [online]. Place: Publisher, 2016, pp. 31–47 [visited on 2016-11-08]. **Series title, series number.** ISBN. Available from <url>
Parsing and formatting of the bibliography fields

\DeclareFieldFormat{howpublished}{\mkbibbrackets{#1}}
\DeclareFieldFormat[online]{howpublished}{%\iffieldundef{howpublished} {\mkbibbrackets{online}} {\mkbibbrackets{#1}}\}}
Multilingual references

Main document language

- language in which the document is written
- babel package
  - \texttt{\usepackage [dutch,english]\{babel\}}
  - \texttt{\usepackage [main=english,dutch]\{babel\}}
- polyglossia package
  - \texttt{\usepackage \{polyglossia\}}
  - \texttt{\setmainlanguage \{english\}}

Bibliography entry language

- language of the cited information resource itself
- .bib file: \texttt{langid = \{english\}}
Multilingual references

Main document language
- availability and access
- date of citation
- creator roles
- conjunctions

Bibliography entry language
- volume
- edition
- numeration
More entry types and fields

<table>
<thead>
<tr>
<th>Entry field</th>
<th>Entry type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>supervisor</td>
<td>thesis</td>
<td>advisor of the final qualification work</td>
</tr>
<tr>
<td>classification</td>
<td>patent</td>
<td>patent classification</td>
</tr>
</tbody>
</table>

Table: Added fields for the bibliography entries
## More localisation strings

<table>
<thead>
<tr>
<th>String</th>
<th>English</th>
<th>Czech</th>
<th>Slovak</th>
</tr>
</thead>
<tbody>
<tr>
<td>at</td>
<td>at</td>
<td>v</td>
<td>v</td>
</tr>
<tr>
<td>bysupervisor</td>
<td>supervised by</td>
<td>vedoucí práce</td>
<td>vedúci práce</td>
</tr>
<tr>
<td>urlalso</td>
<td>available also</td>
<td>dostupné také</td>
<td>dostupné tiež</td>
</tr>
<tr>
<td>from</td>
<td></td>
<td>z</td>
<td>z</td>
</tr>
</tbody>
</table>

Table: More localisation strings
More package options for formatting the output

- **spacecolon=[true|false]**
  - Place: Publisher
  - Place: Publisher

- **pagetotal=[true|false]**
  - Place: Publisher, 2008 [60 p.]
  - Place: Publisher, 2008

- **shortnumeration=[true|false]**
  - ... 2011, **32**(3), 289–301 [visited on 2016-05-14] ...
  - ... 2011, vol. 32, no. 3, pp. 289–301 [visited on 2016-05-14] ...

- **thesisinfoinnotes=[true|false]**
  - ... Available from: <...>. BP. MU, FI, Brno. Supervisor Petr SOJKA
  - ... BP. MU, FI, Brno. Supervisor Petr SOJKA. Available from: <...>
Redefining in a document preamble

- \renewcommand \multinamedelim {\addcomma \space }
  - SURNAME, Name, SURNAME, Name
- \let \lastnameformat =\textsc
- etc.
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MWE of biblatex-iso690

\documentclass{...}
\usepackage[style=iso-authoryear]{biblatex}
\addbibresource{<bibliography-database.bib>}
...
\begin{document}
\parencite{...}
\parencite*{...}
...
\printbibliography
\end{document}
Sample

Different citation methods and missing fields

author-year: author and editor

„[…] citation of this work (Smith, 2016) […]“
SMITH, John, 2016. Masterpiece. Ed. DOE, Jane. Place: Publisher

author-year: editor only

„[…] citation of this work (Doe, 2016) […]“
DOE, Jane (ed.), 2016. Masterpiece. Place: Publisher

numeric style

„[…] citation of this work [1] […]“
More samples

_Saving Private Ryan_ [DVD]. Directed by SPIELBERG, Steven. Paramount, 1998

@misc{Ryan1998,
  title = {Saving Private Ryan},
  howpublished = {DVD},
  editora = {Steven Spielberg},
  editoratype = {Directed by},
  publisher = {Paramount},
  date = {1998}
}

@misc{LibreOfficeLatest,
  author = {Ruediger Timm and others},
  title = {Libre Office},
  howpublished = {software},
  publisher = {The Document Foundation},
  date = {2000/2016},
  version = {5.2.3},
  url = {https://www.libreoffice.org/download/libreoffice-fresh},
  note = {System requirements: Linux kernel version 2.6.18 or higher…} }

27/32

@patent{Groll2008,
  author = {Clad Metals LLC Canonsburg, PA 15317 (US)},
  title = {Method of making a copper core five-ply composite and...},
  editora = {Groll, W.A.},
  editoratype = {Inventor:},
  publisher = {Google Patents},
  classification = {EP 1 094 937 B1},
  type = {patenteu},
}
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Summary

✓ full reimplementation of the biblatex-iso690 package
✓ compliant with the latest edition of the standard ISO 690
✓ Czech and English documentation
  - use case examples
  - hints and caveats
✓ first public release
  - integrated into the theses document class fithesis3¹
  - published on CTAN²
    » part of TeX Live 2016

¹https://www.ctan.org/pkg/fithesis
²https://www.ctan.org/pkg/biblatex-iso690
Summary

✓ Slovak localisation for the biblatex³ package
✓ pull requests by the community (e.g. translations)
✓ 51 stars of the project in the GitHub repository
✓ 17 forks of the project in the GitHub repository

³https://www.ctan.org/pkg/biblatex
Thanks for your attention!

Q&A

Dávid Lupták