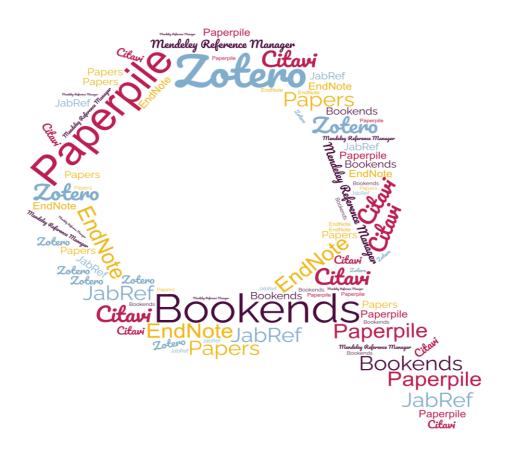


Reference Management Software Comparison - 9th Update (July 2022)





Reference Management Software Comparison

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Content:

- > Key questions
- > Provider / URL, current version, licence model, cost, language
- > Technical specifications: installation, platform / operating system, mobile app, character coding, max. number of records, max. online storage space for web-based applications
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- > Miscellaneous: export, other features, remarks
- > Ease of use: performance, ease of use, help / guides
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- > Final evaluation
- > Imprint

"Literaturverwaltung für LaTeX-Neulinge" (Reference Management for LaTeX Newbies): http://mediatum.ub.tum.de/node?id=1315979

All information for this software comparison was compiled after comprehensive software testing. However, due to the complexity and continuing development of applications we can not assume any guarantee for the accuracy of the information. If you detect any errors or omissions please contact us at literaturverwaltung@ub.tum.de.

Key Questions to Select the Right Reference Management Software

Answers to many of the following questions can be found in this software comparison document. However, some questions will be answered only by testing the program yourself.

Ease of Use / Usabilityy

- > Do I like the interface? Is it intuitive to me?
- > Do I easily find the functions I'm looking for?

Operating system

- > Which software can I use with my operating system (Linux, Mac, Windows)?
- > Which software offers a web-based version?
- > Which software offers a mobile version / app?

Help

- > Are there any training courses for beginners?
- > Are there any materials for self training (e.g. videos, manuals)?
- > Is there any support if I need help (library, company, IT hotline, forums, etc.)?

Compatibility

> What external programs should my reference management software support (e.g. word processor)

Cost

- > Does the software cost anything?
- > Is there a campus licence for my institution?
- > Are there potentially additional costs (e.g. after leaving institution, need for more storage space)?

What features should my reference management software offer?

- > Catalogue and database search from within the program?
- > Indexing and structuring of content?
- > Searching for full texts?
- > PDF editing?
- > Creating reference lists?
- > Online access to my references?
- > Sharing and / or jointly editing references?
- > Task planning?
- > LaTeX support?

Where do I usually work?

- > Do I always use the same computer or do I switch sometimes?
- > Do I have permission to install software on the computer I use?
- > What reference management software do my colleagues / collaborators use?

General

	Provider / URL	Tested	Licence Model	Cost (approx.)	Language
		Version		Might differ in different countries due to taxation	
			Open Source, freeware or commercial? Single user or multi user licence?		
Bookends	Sonny Software, https://www.sonnysoftware.com/	Version 14.1.1	 Commercial Free version, limited to 50 references Bookends for MacOS (single user for apple computers) Bookends for iOS (standalone app for mobile Apple devices: iPhone, iPad, iPod Touch) 	> Single user licence €71.99 (2 years of updates incl.) > For groups: quantity discount > For institutions: price on request	English
Citavi	Swiss Academic Software, http://www.citavi.com	6.11 Citavi for Windows	 Commercial 30-day free trial Citavi for Windows (single users and small groups) Citavi for DBServer (large groups and businesses) Single user licences; student licences; site licences; concurrent licences; alumni licenses 	> Single user licence as Citavi Desktop and Web Bundle (different prices and quantity discounts) > Commercial users from €425 excl. VAT > Authorities from €340 excl. VAT > University-affiliated & researchers from €269 excl. VAT > Students / personal use from €73 excl. VAT / year > Different pricing models for bundles with Citavi Web > Additional storage space available	English, German, French, Italian, Spanish, Polish, Portuguese
EndNote	Clarivate Analytics, http://www.endnote.com	20.2.1	 Commercial (distributed by Clarivate Analytics, Alfasoft and Bilaneys) Single user licences, multiple user licences (> 5 users); student licences, campus licences; business licences, upgrade from previous versions, research & teaching licences Free EndNote Online version "EndNote Basic" with limited functionality and limited storage space (50,000 references, 21 citation styles, 2 GB storage space) EndNote Online Institutional (included in Web of Science license): limited functionality and limited storage space (2 GB storage space, unlimited number of references >3,300 citation styles ~approx. half of the available citation styles) Endnote-online Premium (included in desktop version for 2 years) 	 > Single user licence from €273.70 incl. VAT > Student licence from €130.90 incl. VAT > Multiple user licence (from 5 user) price on request > Upgrade licence (single user) from €113.05 incl. VAT > For EndNote Online: Basic (free), Institutional (via Web of Science licence), Premium (included in desktop license) 	English (EndNote Online also in German, Chinese, Japanese, Korean, Portuguese, Spanish)
JabRef	JabRef-Open-Source-Community https://www.jabref.org Coordination: Oliver Kopp	5.6	> Free software, open-source, and free of charge > MIT-License, used libraries partially Apache, LGPL, CC	> Free	German, English, Russian, Italian, French, Spanish, Chinese plus 16 other languages
Mendeley Reference Manager	Mendeley Ltd. http://www.mendeley.com (belongs to Elsevier)	2.73.0 (Desktop)	> Commercial > Free model with up to 2 GB storage space > Fee-based models for individual users, groups and institutions	> Free of charge, storage space expansions from \$5 / month > Up to 5 private groups with up to 25 members each and 100 MB shared web storage space	English
Paperpile	Paperpile LLC https://paperpile.com/	1	> Commercial > Single user licences, group licences, campus licences > 30-days free trial	> Academic licence \$2.99 / month > Business licence \$9.99 / month	English
Papers	Readcube https://www.papersapp.com	4.12.6 (Web) 4.31.1997 (Desktop)	> Commercial > Fee-based single user licences and volume licences (e.g. campus licence)	> Single user licence (annual payment): > Students \$3 / month > Academic \$5 / month > Commercial use ("Corporate") \$10 / month > Volume, multi-year and campus licenses on request	English
Zotero	Corporation for Digital Scholarship https://www.zotero.org/	6.0.9	> Free open-source software > Free web service (up to 300 MB) > Expandable storage space (fee-based)	> 2 GB for \$20 / year > 6 GB for \$60 / year > Unlimited for \$120 / year	Currently 54 languages incl. most European languages; full list see: https://www.transifex.com/zotero

Technology

	Installation	Platform / Operating System	Mobile App	Character	Max. Number of References	Max. Online Storage Space for Web-
				Encoding		based Applications
	Desktop / Web based			Unicode / Special		
Bookends	> Desktop > Synchronisation with app via iCloud	Newest version as of Mac OS 10.13Older versions also available	 Standalone app for iPad, iPod Touch and iPhone available in the app store free of charge (Limitations: 20 search results, 50 references, watermark on stored and annotated pdfs, advertisements) 	Unicode support	+ > Unlimited, max. 50,000 - 100,000 references per "library" are recommened	> Local storage; for integration of a web service (iCloud is used / recommended for references; limitations are subject to the conditions there). Attachments can also be integrated via e.g DropBox, Google Drive, Microsoft OneDrive
Citavi	> Desktop > Web based (not tested)	+ > Windows > Web version since June 2021; alternative use on Mac only through simulations of Windows environment via "Parallels" or "VMWare" (free)	- > No	Unicode support	+ > Max. 50,000 titles per project (depending on structure of the data)	 Storage space in the cloud 1 GB, additional storage space can be purchased Individual pdf files max. 100 MB, other files max. 50 MB
EndNote	> Desktop > Web based	Desktop: Windows, Mac EndNote 20 as of Windows 10 / Mac OS 10.14 As of Mac OS 10.15 Catalina: no compatibility with EndNote x8 and earlier EndNote Web: platform independent	EndNote for iPad, iPhone EndNote Web Mobile (browser version for mobile devices)	Unicode support	Desktop version: unlimited EndNote Basic: 50,000 references EndNote Online Institutional: 50,000 references	> Unlimited > Basic: 2 GB > Institutional: 2 GB
JabRef	> Desktop	+ > Windows, Mac, Linux > Also available as a portable-version > Java required	- > Only for Windows tablets	Unicode support	+ > Unlimited	
Mendeley Reference Manager	DesktopWeb basedSynchronisation between desktop and web account	+ > Desktop: Windows, Mac, Linux - > Web: platform independent	> No	Unicode support	+ > Unlimited	> 2 GB for free > Fee-based upgrades to 5 GB, 10 GB or unlimited storage
Paperpile	> Web based > Plugin for Google Chrome required	+ > Windows, Mac OS X, Linux, iPad, iPhone or Android and Chrome	+ > iPad, iPhone and Android app	Unicode support	+ > Unlimited	> Storage space depends on one's own Google Drive storage space (15 GB free for private users)
Papers	> Desktop > Web based	Desktop: Windows, Mac Web: platform independent	 > App for iOS and Android > Synchronisation with web account and app 	Unicode support	+ > Unlimited	> Single user licences : unlimited, but max. 5 "Shared Libraries" with max. 30 users > Enterprise licence: unlimited
Zotero	> Desktop app with browser extension for Firefox, Safari, Chrome > Web based	+ > Desktop version: Windows, Mac, Linux > Web: platform independent	 Mobile version by zotero.org Various third party apps, for full list see: https://www.zotero.org/support/mobile Official iOS version available 	Unicode support	Vunlimited, but for Sync: free storage space limited for attachments and full texts External web storage embeddable via WebDAV	> Free version: 300 MB > External web storage embeddable via WebDAV

Import I

	1 1	- Impl	_		
	Database Search			Data Import	
	Is database search from within the software supported?	What resources are available?		Is data import via import filter supported?	Which import filters are available? (bibliographic databases and other reference management software)
Bookends	+ Yes	 Interfaces to various databases, search engines and library catalogues available (freely available and password protected sources e.g. Pubmed, arXiv, Web of Science, Google Scholar, Library of Congress, Google Books, Semantic Scholar) Sources can be integrated via Z39.50 / SRU interface. Definition of individual import filters supported 	+	Yes	Text files from reference management programs or online sources (e.g. RIS, Refer, BibTeX, Zotero) XML files from literature management programs with Endnote or refer scheme MARC format COinS format recognition Creation of own import filters supported
Citavi	+ Yes	> Access to over 4,600 resources (Online search > Add database or catalog) > Access to additional resources can be requested	+	Yes	 Different reference management software (EndNote, Mendeley, Reference Manager, RefWorks, Word Quellenverwaltung, Zotero) RIS, BibTeX, EndNote Tagged etc. approx. 4,600 database specific filters Editable import for tables, textfiles, special formats or databases Additional filters can be requested
EndNote	+ Yes	> Access to over 3,900 resources; installation kit incl. approx. 400 > Access to additional resources can be requested or downloaded from EndNote website http://endnote.com/downloads/connections	+	Yes	> RIS, Tab Delimited > Over 680 database specific filters (http://endnote.com/downloads/filters)
JabRef	+ Yes	> Access to selected search engines and databases (e.g. Springer, IEEEXplore, Medline / Pubmed, arXiv, CiteSeerX, Crossref)	+	Yes	> BibTeX, RIS, Tab Delimited, EndNote etc. > Creation of personal import filters supported
Mendeley Reference Manager	+ Yes, limited	> Article research in the Mendeley Web catalogue; articles of various publishers can be researched (however, it is not clear, which sources are searched)	+	Yes	> BibTeX (.bib), RIS (.ris), EndNote XML (.xml), Zotero (zotero.sqlite)
Paperpile	+ Yes, limited	> Integrated search in Google Scholar, PubMed and arXiv	+	Yes	> RIS, EndNote, BibTeX, NBIB, RefWorks > direct import from Mendeley, Zotero, Papers, EndNote and Citavi
Papers	+ Yes	> Focus on journal articles, mainly Crossref	+	Yes	> BibTeX (.bib), RIS (.ris), EndNote XML
Zotero	+ Yes, limited	> Only search via identifier (ISBN, DOI, arXiv-ID or PubMed-ID)	+	Yes	> 20 data formats, incl.: RIS, BibTeX, MODS, RDF, Refer / BibIX, etc. > Full list see: https://www.zotero.org/support/kb/importing_standardized_formats

Import II

	Import from		Capturing Metadata from Web Pages	Other Import Options	Full Text Search
	Databases		Supraining motadata nom 1752 i agos	Carlot import options	
	Is direct import from databases into software supported?	From which databases ?			Is full text search supported?
Bookends	+ Yes	Databases with specific export format (e.g. RIS, BibTeX, XML, MARC, COins) Partly import via drag and drop from the browser, e.g. PubMed; searches in PubMed can be saved	> Via web importer (bookmarklet) metadate incl. full text > Sources can be called up in an integrated browser and data can be imported	 + > Import of bibliographic data by online search from analysis results of formatted bibliographies using the DOI or PubMed ID via the function "Find Reference Updates" > Files via drag and drop > Folders with subfolders > Automatic import of documents from the "Watch folder" incl. the option of automatically adding metadata > Automated Pubmed searches configurable > Integration of Refbase (refbase.org) supported 	+ Yes, via OpenURL + Ezproxy
Citavi	+ Yes	Databases with specific export format (e.g. RIS, BibTeX, EndNote) COinS format or HighWire-Press- Tags	 > With Citavi Picker (for Firefox, Internet Explorer, Chrome): Import of metadata or content from websites > Using ISBN, DOI or PubMed-, PMC-, arXiv-ID with Citavi Picker > Capturing of selected text as quote, abstract, table of contents or keyword > Capturing of websites screenshot as PDF 	Import of bibliographic data by submitting ISBN, DOI, PubMed-, PMC- or arXiv-ID Import from bibliographies PDF documents via drag and drop Import of folders with sub-folders Import from PDFs via Acrobat Picker	+ Yes (also in licensed full texts after entering the OpenURL + Ezproxy or HAN)
EndNote	+ Yes	> Databases with specific export format (e.g. RIS, BibTeX, XML)	Capture Reference bookmarklet (via EndNote Online) EndNote Click (searches for PDF full texts, export to EndNote)	Import of bibliographic data by submitting ISBN or DOI via "Online Search" or "Find Reference Updates" function Files via drag and drop Folder with sub-folders (as groups) Auto import of documents from Auto Import Folder "Find Full Text" search in Auto Import Folder	+ Yes, via OpenURL + Ezproxy
JabRef	+ Yes	> All databases with export option in BibTeX format	> Via browser plug-in (Chrome, Edge, Firefox, Vivaldi)	Import of bibliographic data by submitting DOI, ISBN, Pubmed-ID and further identifiers Pasting DOI / ISBN / BibTeX entry from the clipboard to the main window starts automatic import Import of plain text Import of PDF metadata	+ Yes
Mendeley Reference Manager	+ Yes	> Databases with specific export format (e.g. RIS, BibTeX) > COinS format	> With Web Importer (bookmarklet): metadata, abstracts, and full texts (PDF)	Files (PDF) and folders via drag and drop Import of bibliographic data by submitting PubMed ID, arXiv ID or DOI	+ Yes, in the desktop version, web links to the Mendeley catalogue in the individual entries, some of the full texts are linked, especially for popular journals; if necessary, authentication with Shibboleth to gain access
Paperpile	+ Yes	> Databases with specific export format (e.g. RIS, BibTeX)	> Yes, via browser plug-in	+ > Import via browser plug-in (Google Scholar, PubMed, arXiv) > PDF-import > Import of supplementary files	+ Yes, proxy settings can be saved
Papers	+ Yes	> Databases with specific export format (e.g. RIS, BibTeX, XML)	> Via Web Importer (browser plug-ins for Chrome, Firefox, Edge)	> Auto import via university web > Files via drag and drop > Auto import of new documents from "watched folder" > Import of bibliographic data by submitting PubMed ID, arXiv ID or DOI	+ Yes, if the reference data is already saved in the program
Zotero	+ Yes	Databases with specific export format (e.g. RIS, BibTeX) Direct capturing via browser plug-in	Via icons in the toolbar; see http://www.zotero.org/support/translators/ Capturing screenshot of websites Bookmarklet for basic functions for other browsers	Files via drag and drop Import of bibliographic data by submitting ISBN, DOI, arXiv-ID or PubMed-ID	+ Yes, via Google Scholar, CrossRef, and OpenURL (other search services can be added; full texts not automatically added)

Data Format

	Document Types		Data i Simut	Fields		
	How many document types (book, book chapter, etc.) are supported?		Are user generated document types supported?	How many fields are assigned to each document type?		Are user generated fields supported?
Bookends	56 document types (17 predefined, the others can be designed individually)	+	Yes (adaption of the "unused" types)	Depends on document type, up to 34 fields (incl. freely adaptable fields)	+	Up to 20 fields can be named specifically
Citavi	35 document types	_	No	Depends on document type (16-50 fields)	+	9 fields freely definable according to document type
EndNote	57 document types	+	Yes (Modification of available document types / customisation of three "unused" document types)	Depends on document type (28-51 fields, incl. "Custom Fields")	+	8 "Custom Fields" freely definable
JabRef	BibTeX mode: 19 document types BibLaTex mode: 39 document types	+	Yes (adaption of all existing document types and definition of any number of new document types including definition of mandatory fields)	Depends on document type; up to 44 fields	+	Unlimited number of fields customisable
Mendeley Reference Manager	20 document types	-	No	Depends on document type; up to 66 fields	-	No
Paperpile	36 document types plus 96 subtypes	_	No, but large number of predefined document types available	Depends on document type, approx. 30 - 70 fields	-	No
Papers	34 document types	-	No	Depends on document type; approx. 25 fields	_	No
Zotero	35 document types	_	No	Depends on document type; approx. 35 fields	-	No, but there is an "Extra" field that can be filled with any content

Editing I

	Indices		Completion of Metadata	Interconnections
	Do newly added data (authors, journal titles, keywords) automatically generate term lists / indices?	Automatic completion from term lists on data input?	Is completion of metadata by using other sources supported?	Is interconnection of references supported (e.g. new editions, translations)?
Bookends	+ Yes > Authors, editors, keywords, journal titles > Own lists can also be defined	+ Yes	When entering the ISBN, DOI, PubMed-ID, arXiv-ID, JSTOR URL the bibliographic information and the cover is added automatic retrieval of metadata from documents via DOI / PubMed-ID	+ Yes > Data sets can be linked (so-called "Link Inspector" function) > "Cited-In or by Inspector" function evaluates citation information from PubMed and Crossref.org to create citation networks between publications of the own library to recognise / indicate citation networks.
Citavi	+ Yes > Keywords, categories, authors, institutions, place published, publishers, journal and newspaper titles, series, libraries	+ Yes	Input of ISBN, DOI or PubMed-ID completes bibliographic data and adds book cover Automatic completion of metadata from PDFs	+ Yes > Edited book and its chapters are linked > Two-way referrals between references within a project are supported
EndNote	+ Yes > Authors, keywords, journal titles > Users can create new term lists > Pre-defined journal term list available	+ Yes	Completion of metadata with function "Find reference Updates" Automatic completion of metadata from PDFs documents via DOI	- No
JabRef	+ Yes > Customisable	+ Yes	Input of DOI, ISBN or other identifiers completes bibliographic data Completion of metadata from PDFs	+ Yes > Via the field "Crossref" by using the BibTeX key of the parent publication
Mendeley Reference Manager	+ Yes > Authors, tags	+ Yes	Automatic completion of metadata from PDFs Input of DOI, PubMed-ID or arXiv ID completes bibliographic data	- No
Paperpile	Yes > but only for labels	- No	+ > Yes, retrieving metadata via "auto-update"	Only via workaround: using markdown via a comment in a PDF file of a record a link to another record can be created
Papers	+ Yes > Only self-created (Smart Lists)	+ Yes	+ > Yes	- > No
Zotero	+ Yes > Lists for keywords / tags and publication date timeline > Auto-completion for authors, place published, publisher, journal titles	+ Yes	+ > Completion of metadata from PDFs (manually with right click)	+ Yes > By using the function "Related" (no hierarchical relations)

Editing II

	Linking / Integration	Editing Documents (PDFs)	Duplicate	Global	Folders / Groups
	Linking / Integration of Documents	Editing Documents (FDFS)	Checking	Changes	Folders / Groups
	Is linking / integration of documents supported?				Is creation and allocation of folders / groups supported?
Bookends	+ Yes	+ > Creating highlights in different colours, comments, underlining, tags, quotations (incl. page number); format compatible for various PDF viewers > Export of annotations is supported > Automatic renaming of PDF documents during import > View of the PDF configurable > Pop-up display of the table of contents > Search in PDF with results list	+ Yes, also customisable	+ Yes	Yes > Groups: Static (manual assignment) and Smart (according to defined search criteria, automatically fed) > Virtual groups: by selecting several groups, one can form intersections with AND and OR > Folders with subfolders can be defined for the hierarchical organisation of groups; Smart Folders possible for combining of Smart / Static Groups > Groups and folders can be coloured > Multiple assignment possible
Citavi	+ Yes	Commenting and highlighting in PDFs supported Copying of text blocks as citations or tasks Import of images as image citation Highlights from external PDF readers can be imported as quotations	+ Yes	+ Yes	+ Yes > Categories (multiple levels) > Groups (one level) > Multiple allocations for categories and groups possible
EndNote	+ Yes, (absolute or relative links to copy in project)	+ > Highlighting, commenting, underlining and striking out text supported	+ Yes, also customisable	+ Yes	+ Yes > 3 sorts of groups (Custom Groups, Smart Groups, Combined Groups) > Custom Groups: manual assignment > Smart Groups: auto assignment with deposited search > Combined Groups: show joint references and subsets of Custom and Smart Groups > Multiple allocations possible
JabRef	+ Yes	Adding bibliographic data to the PDF's metadata ("Dokumenteigenschaften") No content editing (Highlights, comments, etc.) Batch renaming of files based on metadata according to a metadata according to a freely selectable scheme	+ Yes	+ Yes	+ Yes > Multiple levels > Multiple allocations possible > Automatic allocations possible
Mendeley Reference Manager	+ Yes	+ > Annotations and highlighting text supported > Transferring text passages to the note area of the reference or in a superordinate notebook	- No	+ Yes	+ Yes > Folders; multiple levels > Multiple allocations possible
Paperpile	+ Yes	Extensive editing of content, also on mobile devices (multi-coloured highlights, comments, arrows, circles, boxes, text) Printout as summary	+ Yes	- No	+ Yes > Folders; multiple levels > Multiple allocations possible
Papers	+ Yes	- No	Yes (duplicates are not imported)	- No	Yes (here called lists) > Automatic lists ("Smart Lists"), which update themselves automatically (as with iTunes), can be generated according to predefined criteria
Zotero	+ Yes	Built-in PDF viewer available, highlighting of text and the insertion of comments supported	Yes, duplicates can be merged	 Only for tags 	Yes Folders e.g. for single projects Multiple levels Multiple allocations possible Automatic allocations possible

View / Search

	Viewing	Sorting	Searching		
	What options to view references are available? (short view / full view / customisable)	What options to sort references are available?	Is quick search and search in selected field with Boolean operators supported?	Can searches be saved?	Search in full texts supported? Per document or across all documents?
Bookends	Nulticolumn view (configurable display of up to 10 fields) Configurable list view (in the sense of field selection), sort criterion can be selected (e.g. author, title, date,), attachment displayed as thumbnail Full view View of a citation in the selected citation style	> By clicking on the field headings (Author, title, year, document type etc.) > Sorting is customisable	"Live Search" (single-field search) delivers the search results on-the-fly from all fields; Boolean operators can be used Complex search with Boolean operators Search in attachments Search in PDF tags that have been assigned Formulation of complex SQL / regex searches supported Search in the tag cloud (also possible in combination)	+ Yes	+ Yes, also across documents
Citavi	> Tab view (tabs customisable) > List view (formatted) > Table view (displayed fields customisable) > View of reference in selected citation style	Click on field headers (Table view) Separate sort function by title, year, location or customised filter	> Quick search > Search in selected fields (both with Boolean operators) > Search in PDFs > Filters for reference type, keyword, person and more	+ Yes	+ Yes, also across documents
EndNote	> List view (customisable) > Full view > View of reference in selected citation style	Click on field headers "Sort Library" function enables sorting across several criteria	> Quick search > Advanced search with Boolean operators > Search in attached PDFs and commentaries	+ Yes	+ Yes, also across documents
JabRef	> List view (fields customisable) > Full view with tabs > BibTeX source code view > Preview for selected citation styles > Display of the citing LaTeX documents (project-specific)	+ > Click on field header > Sorting by multiple criteria	> Quick search > Advanced search (Boolean operators and general terms can be used) > Global search within all open databases > Full text search of all linked PDFs	+ Yes (as dynamic group and systematic literature overview)	Yes, also across documents
Mendeley Reference Manager	> List view	+ > Ascending and descending by 6 fields	> Quick search > Advanced search by author and tags > Search with Boolean operators	- No	- Search in individual PDFs
Paperpile	> Short and detailed display	+ > By date, year, title, journal etc.	Quick search in title data only	- No	 Search in individual PDFs, across documents only via Google Drive
Papers	> List view> Table view> Full view of one entry	+ > Ascending and descending by 12 fields	 > Quick search > Advanced search by author, title, publication, year, notes > Search with Boolean operators 	+ Yes	+ Yes, also across documents
Zotero	> List view (customisable) > Timeline view - visualisation with timeline and colour tagging by topic	+ > Click on field headers	> Quick search > Advanced search (any / all / phrase search) > Tag search > Search in attached PDFs	+ Yes	Yes, also across documents

Collaboration

	Sharing	Collaboration	Social Networking
	Can references be shared (read only) with other users?	Can multiple users edit references ?	
Bookends	Yes, sharing is possible for all persons who have an Apple ID and have installed Bookends for Mac or iOS (read-only) Bookends can be configured as an HTTP server, to allow external users (if necessary controlled by password / IP-address check) to download formatted references and to enable an upload	> Yes, sharing is possible for all persons who have an Apple ID and have installed Bookends for Mac or iOS (read-only)	- > No
Citavi	Yes, titles via email (also PDFs); add-on "Send References by Email" necessary	Yes, when storing in the cloud = team use with rights assignment for readers (read), authors (edit) and project managers (manage project) available (Note: no rights assignment with Citavi for Windows) For larger groups via Citavi for DBServer; data storage on Microsoft SQL server, local hard drive or network drive.	+ > Chat in team projects
EndNote	+ > Individual references by email (also PDFs)	 Yes, individual folders (groups) or the whole library can be shared Share folder: multiple users have reading and editing permission (only references, not full texts) Share-Library feature: Users have reading and editing permission for whole library incl. full texts (only via desktop version) 	- > No
JabRef	+ > Yes, via email	 > Joint processing of data stock by integration of an external SQL database possible (Postgres, MySQL, Oracle) > Warnings and merge function, if the BibTeX file was changed by an external program 	- > No
Mendeley Reference Manager	> No, sharing only in private groups	> Yes, in private groups (PDFs can be shared, commented on, etc. by all members of the group)	Publication of personal profile with curriculum vitae and professional preferences Information on open positions
Paperpile	+ > Yes, via link or email (both also PDFs)	Yes, "shared folders" can be used to give other people read-only access or editing rights	- > No
Papers	+ > Yes, via email, Facebook, Twitter, Linkedin	> Yes, only in the Enterprise version (campus or company license)	- > No
Zotero	 Yes, via the group feature (read-only sharing for all logged in Zotero users or a share for added group members only can be selected). 	> Yes, for registered users > Editing in shared groups with different privacy modes	Communication in interest groups Creating of own researcher profile People search

Citing

	Citation Styles		Generating Bibliographies (static)		Integration with Word Processing System	Generating Bibliographies (dynamic)
	What citation styles are available? Are common styles such as MLA, APA, Harvard available?	Are citation styles editable?	Is export of single (formatted) references supported?	Can bibliographies be generated and exported as text files?	Is export of references into word processing systems supported?	Automatic update of bibliogaphy when adding new reference?
Bookends	+ > Variety of predefined citation styles > .csl files cannot be imported	+ > Yes	+ > Yes	+ > Yes	 Yes LaTex support Integration (add-in) in Word, Mellel (discounted licence is offered for this), Nissus Writer Pro; for the others such as Apple Pages, Libre Office, etc. there are paste options from Bookends "Floating Citation" function enables the insertion of references / attached files conveniently by button click, keyboard shortcuts or drag and drop in various text editors and e-mail programs In some cases, a "scan" is necessary to insert temporary placeholders into fully formatted references / footnotes. 	+ > Automatic update in Mellel > Synced BibTeX file can be created
Citavi	Nore than 11,500 citation styles New citation styles can be requested from provider (http://www.citavi.com/stylerequest)	+ > Yes	+ > Yes	+ > Yes	 Yes Word add-in LaTeX editors (LEd, Lyx, Texmaker, TeXnicCenter, TeXstudio, TeXworks, WinEdt, WinShell) 	> Word add-in: Yes, automatic update > LaTeX: bibliography is being updated at next BibTeX / LaTeX run
EndNote	More than 7,000 citation styles installed Installation kit incl. approx. 500, further styles available at http://endnote.com/downloads/styles	+ > Yes	+ > Yes	+ > Yes, (with export function and "Subject Bibliography")	Yes, add-in ("Cite While You Write") for Word, Office 365 Desktop, Wolfram Mathematica 8, Apple Pages, OpenOffice (Windows), Libre Office (Windows)	+ > Automatic update
JabRef	> Formatting and citation styles with BibTeX / BibLaTeX	> See BibTeX / BibLaTeX	> See BibTeX / BibLaTeX	> See BibTeX / BibLaTeX	Yes, direct support for some LaTeX editors Direct support for LibreOffice External plug-in for Word (only Windows)	+ > Updating of bibliography after next BibTeX / LaTeX run > Automatic update in LibreOffice
Mendeley Reference Manager	> 10 citation styles with installation > More than 10,000 styles can be added (incl. user generated and modified styles), see: https://citationstyles.org	+ > Yes (via Citation Style Editor: https://editor.citationstyles.org/about/)	> Yes, by copying (from Mendeley) / pasting (into Word etc.)	+ > Yes, in BibTeX format	> Yes, with add-in Mendeley Cite for Word	+ > Automatic update
Paperpile	More than 8,000 citation styles (CSL styles)	+ > Yes (via Citation Style Editor: https://editor.citationstyles.org/)	→ Yes, via clipboard	+ > Yes, in BibTeX format	Yes, in Google Docs Add-in for Word in beta stage BibTeX, also Overleaf	+ > Yes, via plug-in for Google Docs and Word
Papers	Word add-in with online connection, thus direct use of over 8,000 CSL styles plus 5,400 additional styles from scientific journals	+ > Yes, upload via Word add-in possible > CSL-layout	 Yes, single or multiple Copy formarted into clipboard 	+ > Yes, in BibTeX or RIS format	+ > Yes > Word add-in, LaTeX support	> Only by clicking on "Refresh References"
Zotero	+ > 15 citation styles with installation > More than 9,000 styles can be added (incl. user generated and modified styles), see: http://www.zotero.org/styles	+ > Yes (via Citation Style Editor: editor.citationstyles.org), but it is complicated	+ > Yes	+ > Yes	Yes (Word plug-in; OpenOffice / LibreOffice / NeoOffice extension and Google Docs)	+ > Automatic update

		Miscellaneous		
	Export	Other Features	Remarks	What's new?
	Is export of references in specific file format supported?			
Bookends	 Yes BibTeX, Tab-delimited Text, Endnote, XML, HTML, plain text, formatted text Attachments and PDF annotations can also be exported Duplication of data records is possible 	 > Spell checking (standard Apple functions can be used) > Saving of quotations with page number in PDF editing > Read aloud function can be activated > automatic backups configurable > automatic generation of a BibTeX key > Voice-to-text function > Marooned Attachment Manager: Attachments in the attachment folder, which have not yet been assigned to a reference are displayed and can be edited / automatically added / assigned. > Automatic defragmentation function to save space and improve performance. > Functions for reindexing, rebuilding and repair available. 	> Full integration in Apple environment with iCloud and synchronisation with (standalone) app for mobile devices	> Everything for this test ;-)
Citavi	 Yes BibTeX, BibLaTex, Endnote, RIS, (BibTeX- / BibLaTex-Export customisable) Export in table formats (.xls, .odt) 	 Adding of quotations (linked to text passage) and thoughts Creation of outline in Word from Citavi's categories Via Word add-in access to categories, references, and quotations Task planner (organising of tasks, deadlines, etc.) Auto generation of BibTeX key Citation Style Finder (supports search for styles by specific formatting for single elements in a reference) Automatic back-up of Citavi files when quitting project Import / export of categories as mindmap (MindManager, FreeMind, ConceptDraw) RSS-Reader Citavi Compilation: Compilation of knowledge items by category to a Word document Working in a team in the cloud (tasks can be delegated, rights assignment possible, communication via chat) Various features can be added via add-ons 	 Since February 2021, Swiss Academic Software GmbH is part of QSR International. Citavi thus complements NVivo (data analysis software). Data from the Citavi accounts of the cloud projects remain in Europe (see press release: www.citavi.com/de/news/articles/citavi-is-now-part-of-qsr-international Support and further development will continue to be the responsibility of Swiss Academic Software GmbH 	> Web version since June 2021
EndNote	> Yes > BibTeX, RIS, Tab Delimited	 "Manuscript Wizard" offers Word templates for publication in various journals (https://endnote.com/downloads/templates) Automatic renaming of PDFs at import Automatic search for PDF full text of new references in the Auto Import Folder possible "Manuscript Matcher" in EndNote Web: suggesting journals for publication Retraction Alert": retracted articles are checked for retractions by DOI / PubMed ID in "Retraction Watch database" and displayed in a "Retractions" folder 	Support through Clarivate Analytics Distribution in Germany by Clarivates Analytics, Alfasoft and Bilaney Consultants BibTeX keys must be entered manually for each record	> "Retraction Alert" as of version 20.2 > Revised user interface > duplicate check also via DOI and PubMed-ID
JabRef	> Yes > BibTeX, RIS, EndNote, several HTML- variations, csv,	 Auto generation of BibTeX key Export filter editor 5-level ranking, 3-level prioritisation and relevance marking as well as quality marking Check for duplicates and merging of entries Integrity check Batch processing of multiple datasets Search for citations in LaTeX projects Creation of a sub-library based on the sources used in the LaTeX project (aux parser) 	> Selection of the databases or search engines aligned to MINT field	> Automated, version-controlled searches across multiple databases (for systematic literature reviews) > Option to download full texts during import of metadata > Full-text search across linked documents > Configuration of API keys for selected databases > Revised user interface (theming via CSS possible) > User-defined SSL certificates
Mendeley Reference Manager	> Yes > BibTeX (.bib), RIS (.ris), EndNote XML - Endnote v8, X1 to X3 (.xml), Word (.xml)	 Complete synchronisation of desktop version with web version. In addition to annotations on individual references, a notebook can be used to collect notes, text extracts, etc. Personal profile can be annotated with professional preferences and a CV and used for job search Option to publish research data on the Mendeley website 	> Own publications can be synchronised with Mendeley via a Scopus profile > The web importer delivers only mixed results with some databases	> Mendeley Desktop will be fully replaced by the Mendeley Reference Manager and the citation tool Mendeley Cite. However, these do not have the full functionality of Mendeley Desktop.
Paperpile	> Yes > RIS, BibTeX, CSV and JSON	> Automatic generation of BibTex keys and synchronisation of a BibTeX file > Summary of notes in PDFs > Synchronisation across different devices	 A Chrome installation (or Chromium, Brave, Vivaldi or Edge) is required Login via existing private or institutional Google account: requires consent to access Google Drive storage space 	> Integration in Word > Advanced search and Paperpile for Firefox and Safari is planned
Papers	+ > Yes > BibTeX, RIS	Display of bibliometric data on articles (number of citations, RCR number) with the option to directly access and download cited articles Recommendations for further articles on the basis of the already existing reference entries	,	
Zotero	 Yes BibLaTeX, Bibliontology RDF, BibTeX, Bookmarks, COinS, CSL, JSON, CSV, Endnote, XML, HTML, MODS, Note Markdown, Refer / BibIX, RefWorks, Tagged, RIS, Simple Evernote Export, TEI, Unqualified Dublin Core RDF, Wikidata Quick Statements, Wikipedia Citation Templates, Zotero, RDF 	> Generating of reference independent notes > Colour tagging > Creating publication lists in the zotero.org account > Subscribe to RSS feeds	Nany plug-ins available Regular back-up or usage of the online sync function recommended RSS feeds of the own database can be created	 PDF Viewer: Open PDFs directly in Zotero with the possibility to copy quotations and to colour-code text. Inserting notes / quotations directly in the word processor, partly with automatic referencing function Mac: Safari extension is now installed together with the main program Spell check of notes now also available for non-English languages

Ease of Use

	Doutousses	Ease of Use	Halm / Ovides
	Performance	Ease of Use	Help / Guides
	Speed, response time	How intuitive is the user interface?	What help / guides are available?
Bookends	+ Good	> English interface only	> Quick start guide
		> Own citation style manager is very flexible, requires training	> Manual (very detailed, with step-by-step instructions and screenshots)
		> Very many configuration options can be used well after training	> Video tutorials
			> FAQ
			> Forum
			> Contact form
Citavi	+ Good	Very good (very intuitive, individual steps and options are explained)	> Getting Started Guide
			> Manual
			> Manual for academic work
			> Videos and slide shows
			> Very good context sensitive help
			> FAQ
			> Forum (English and German)
			> Contact form
			> Citavi blog: "Nützliche Irrtümer"
			> Training courses
EndNote	+ Good	> Ease of use is medium - many functions rather "technical", need for	> Manual
		explanation (e.g. input fields, RIS export, syntax for citation style	> Manual for writing a research paper
		customisation, import via import filters)	> Online training documents
			> Online tutorials
			> Mailinglist
			> Forum
			> E-mail support / contact form
JabRef	+ Good	Sood, intuitive and customisable	> Online manual and FAQ
		> Designed for LaTeX users	> Support forum
			> Issue tracker
Mendeley	+ Good	+ > Good	> Online help pages
Reference			> Getting Started Guide
Manager			> Chat
			> There are good entry guides and many explanations. For concrete detailed questions,
			the help pages can sometimes be a little confusing.
Paperpile	+ Good	+ > Good, clean interface	> Forum
		> Also comfortable to use on mobile devices	> FAQ
			> Contact form
			> Blog
			> Welcome e-mail and Getting Started Guide
			> Visual onboarding explaining core functions at first launch
			> Changelog and roadmap
_			> New Help Centre under construction
Papers	+ Good	+ > Good	> Online database with numerous articles
			> "Bootcamp" for beginners with short documentation and several videos
			> Live webinars for beginners
Zotero	+ Good	+ > Good	> Video tutorials (e.g. Quick Start Guide)
			> Help pages / documentation
			> Forum with large community, questions are often answered quickly and directly by the
			developers

	¥	selve ont	ete e Ctee	W	adlait	r OR Nabi	Q Qass	gd pedito	Skied No.	, Linu ^t	Mobil	Ostal Se Pos	Oxio See See	ing though	captill Capti	ohet	s detadata	ton Weight Linking	Prode Net add	o kalaga	skind Skind	John John	A Socie	Selson Selson	ing hou	Proces	s neigh	Jation Textile
Bookends		•	•*		•	0		0	•	0	•	•	•	•	•	•	•	•	•	•	•	0	•	•	•	•*	•*	
Citavi		•	0		•	•		•	•*	•*	0	•	•	•	•	•	•	•	•	•	0	•	•	•	•	0	•	
EndNote		•	•*		•	•		•	•	0	•	•	•	•	•	•	•	0	•	•	0	•	0	•	•	0	0	
JabRef		0	•		•	0		•	•	•	0	•	•	•	•	•	•	•	•	•	0	0	0	•	•	•	•	
Mendeley Reference Manager		•	•		•	•		•	•	•	0	0	•	•	•	•	•	0	0	•	0	•	•	•	•	0	•	
Paperpile		•	0		0	•		•	•	•	•	•	•	•	•	•	•	0	•	•	•	•	0	•	•	•	•	
Papers		•	0		•	•		•	•	•*	•	•	•	•	•	•	•	0	•	•	•	•	•	•	•	•	•	
Zotero		0	•		•	•		•	•	•	•	0	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	

- available
- ●* partly available
- o not available

Final Evaluation

Criteria for	> Licence model and price	> Sharing, jointly editing							
Evaluation	> Platform / Operating system	> Social networking options							
	> Database search	> Word processor integration							
	> Import options	> Other features							
	> Full text search	> Ease of use							
	> Completion of metadata	> Help, guides							
	> Attaching / integrating of documents								
	Under "Strength" and "Weakness" we have listed features which stand out very positive or negative.								

	Strength	Weakness	User Group
Bookends	> Besides commercial also free version with full range of functions (limited to 50 titles per library) > Search for full texts and various automatic additions of metadata > Integrated web browser with customisable bookmarks > Collaborative editing via iCloud > Extensive help offers and very detailed manual > PDF reader with many editing functions > Citation style manager is well usable > Import filter can be defined individually > Many options for individual customisation	> Only available for Apple operating systems > Synchronisation of references only recommended via iCloud > Integration in text editors partly via placeholders with final formatting routine	> Apple User > from beginners to professionals (after training)
Citavi	> Full text search > Comprehensive knowledge management and task planning > Very intuitive interface > Jointly editing in small teams using the same drive or in the cloud supported; for larger groups external server and Citavi for DBServer > Extensive help options and very good individual support > Easy to use Word add-in with useful functions > PDF reader with comprehensive editing options > Unique Citation Style Finder	> Windows only	> Windows user > Beginners to professionals
EndNote	> For Windows and Mac > Web version free for subscribers to Web of Science and with purchase of desktop version > Free web version EndNote Basic (limited functionality) > Manuscript Matcher to search for appropriate journals for publication > iPhone / iPad app > Automated import of PDFs and search for full texts supported > Search in metadata, PDF full text and PDF comments supported > Retraction alert supports the detection of retracted articles	> Not very intuitive > Web version: documents can not be shared between members of a shared group (only references) > People with the latest Mac versions (from MacOS 10.15 Catalina) cannot use EndNote x8 and earlier anymore	> Windows and Mac users > With some training for all user groups

	Strength	Weakness	User Group
JabRef	> When using Java: available for Windows, Mac, and Linux > Good integration with several LaTeX editors > No size limitation, performance even at databases with > 10,000 entries good > Sensible default settings for document types and fields but still completely freely definable > Ranking, relevance, and priority data > Open-source, free > Intuitive usage > Full text search > Uses native BibTeX format and is therefore easily usable for LaTeX users without data conversion	> No social networking options > Not usable on mobile devices except Windows tablets	> For LaTeX users > For large reference collections > Especially for STM field (database selection) > Beginners to professionals
Mendeley Reference Manager	> Desktop version for Windows, Mac, and Linux; additional web version, therefore platform independent > Free (up to 2 GB storage) > Collaboration within private groups very good > Access to data everywhere through synchronisation	> Many important functions from the former Mendeley Desktop have not been transferred to the new Mendeley Reference Manager (so far): duplicate check, file organiser, watched folders, BibTeX syncing, connection to Zotero etc. > Only PDFs are recognised and correctly displayed when uploading files > Mendeley Cite requires an account in the Microsoft App Store and works only with Microsoft Office 365, Word 2016 and higher and Word app for iPads > No more Libre Office plugin > Mendeley Cite does not work offline and requires the browser Microsoft Edge	> Compared to other programmes smaller range of functions, suitable for users who prefer reduced program interfaces > especially suitable for users who mainly work with PDF full texts
Paperpile	> Operating system independent > Extensive PDF editing options, also on mobile devices incl. summary printout of notes > Support for many word processing tools: Word (in beta stage), Google Docs, BibTeX, Overleaf > Many document types and data fields to choose from	> Only available for Chrome browser > No cross-document search in PDFs > At the time of testing only simple search in metadata	Suitable for all disciplines, from beginner to professional Particularly suitable for users who work predominantly with PDF full texts
Papers	> Good team function > Clean and intuitive interface > All platforms > Good import function of full texts > Synchronisation function between different platforms and devices	> No free version > No automatic import of books, focus on articles ("Papers") > Word add-in improvable	More suitable for disciplines which mainly use articles Good for beginners, as the surface appears to be very clean and intuitive
Zotero	> Desktop version for Windows, Mac, Linux and web version, therefore platform independent > Firefox extension integrated in web browser where literature search is performed > Open-source, free > Social networking, sharing of papers in groups > PDF annotation and direct transfer of citations from PDF files	> No database seach from within the program > No editing of full texts > No linking between different levels > Only basic structuring and sorting options	> For undergraduates (free) > For smaller reference collections > All research areas

Imprint

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Disclaimer:

All information for this software comparison was compiled after comprehensive software testing. However, due to the complexity and continuing development of applications we can not assume any guarantee for the accuracy of the information.