Juris-M Documentation

Release 4.0.29.6m60

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A reference manager based on Zotero with support for legal and multilingual referencing

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1.1 About Juris-M

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is a variant of Zotero that adds support for legal writing and multilingual research. As far as I know, it is the only reference manager that properly supports these areas of scholarship.

The aim in development is to make only the minimal changes necessary to support legal and multilingual referencing. This reduces the effort required to maintain the project, and holds open the possibility that Zotero itself may one day merge some or all of the functionality offered by .

A consequence of the "minimal changes" approach is that plays well with existing Zotero systems. does not affect an existing Zotero database when installed, but instead creates a copy of the Zotero original; and its libraries can be synced to the user’s existing Zotero account.

The project began life in 2010 as the “Multilingual Zotero” plugin for the Firefox browser (MLZ). When changes to Firefox announced in 2015 threatened to make plugin distribution more difficult, the project was rebranded as “Juris-M,” and for a few months the client was distributed as a standalone program only. It is currently offered both in standalone form (JM Standalone) and as a browser plugin (JM for Firefox).

Zotero itself is poised for some major transformations, with largely rewritten versions of the Firefox plugin and Standalone clients due out later this year, followed by a planned migration to a new platform independent of Firefox. will follow these developments.

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2 April 2016

1.2 Release Announcements

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1.2.1 v4.0.29.10m87

Update translators and styles  This should happen more often!
Update citeproc-js to 1.1.113  See the citeproc-js docs for details

1.2.2 v4.0.29.10m86

Update citeproc-js to 1.1.112  See the citeproc-js docs for details

1.2.3 v4.0.29.10m85

Note that several version increments are skipped here. This was due to repeated failures of the Firefox plugin signing mechanism, on a day when I did not have time and patience to reset the state of the archive before making fresh release attempts.
Pass genre value to CSL  This value was apparently not being included in citations in Juris-M, where it is sometimes set under its native database name of genre without internal remapping.

1.2.4 v4.0.29.10m79

Allow installs on Firefox 47  Simple change to the install configuration.
Upgrade to citeproc-js 1.1.108  See the citeproc-js docs for details

1.2.5 v4.0.29.10m78

Jurisdiction updates  Add jurisdiction data for Australia, Switzerland and Singapore, and High Court data for England and Wales.

1.2.6 v4.0.29.10m76

Language Preferences  (1) The earlier change that limited “language” and “script” selections to their respective roles has been reversed. The data on which the menus are based (the IANA Language Subtag Registry) is not sufficient rigorous in classifying tags, and this was causing show-stopping problems for some users. Removing the restriction seems the best way of resolving the issue.
(2) The page layout of the top half of the Language Preferences pane has been reorganized. The presentation may be a little cleaner on some systems—and it is much easier for developers (including me) to follow.
Extra field in Reports  I have placed a border around Extra comments in generated reports. We use this to return comments on bibliography entries to our students (in the Nagoya University Faculty of Law), and the emphasis improves the readability of feedback reports.
Client name  The name of the client was still showing as “ML-Zotero” in tab mode. This has been fixed.
Legal items in the center pane  Some further code changes help assure that something meaningful appears in the Title column of the center pane for legal items.
Race condition avoided  I recently enabled the re-saving of item data, to force the hacked-in data for Juris-M items to be properly allocated in the database. This proved an obsession too far, as it triggered a race condition (an infinite loop) on some database entries. The change has been reversed.
Jurisdictions  The data behind the Jurisdiction search-as-you-type field and the citation process has been updated from the Legal Resource Registry.

Upgrade citeproc-js  See the changes up to citeproc-js v1.1.103 for details.

1.2.7  v4.0.29.9m75

Sync mask for Genre field in Patent  The previous release missed out a sync mask for this extended field, causing sync to fail when data was present in it. This has been fixed.

Import translation fixes  While working on multilingual data across databases, I discovered that some multilingual data was not being imported. This has been fixed.

1.2.8  v4.0.29.9m74

Search-as-you-type conditions for Court  The search facility in the Court field recognized only text from the beginning of the target entry. This was proving to be a royal pain with U.S. federal court decisions, so I have loosen the conditions: search will now select entries that match the entered text anywhere in the field.

Genre field for Patent  One of our M.A. finalists has cited several trademark filings in his thesis. After some casting about, I decided that the Patent type is a reasonably good fit for many types of filings. The addition of a Genre field gives it flexibility for multi-purposing.

Translator for all legal types  Primary legal resources are cited in translation frequently enough to justify adding the Translator creator to all legal types, so I have done that.

Firefox 46 compatibility fix  Firefox 46 brought an upgrade to the browser JavaScript engine, and the upgrade broke some legacy code in the Juris-M version of the CSL editor. This has been fixed.

Help link in Language Preferences  The help link in the Language Preferences pane was pointing to an unhelpful location. Emilian Heyns kindly filed a pull request with the URL of a more meaningful target page.

Jurisdictions  The data behind the Jurisdiction search-as-you-type field and the citation process has been updated from the Legal Resource Registry.

1.2.9  v4.0.29.8m72

Fix scoping error  The fix introduced by m70 was broken due to a scoping error (a call to a variable that did not exist in the context of the caller). This has been fixed.

1.2.10  v4.0.29.8m71

Bump Firefox version  This release permits Juris-M to run on Firefox 46. Oops. There were no other changes in this release.

1.2.11  v4.0.29.8m70

Bump Firefox version  Firefox continues to issue releases at a blistering pace. This fixes some compatibility issues in legacy Juris-M code.

Update citeproc-js  The citeproc-js citation engine was upgraded to 1.1.101.
1.2.12 v4.0.29.8m69

Multilingual **conferenceName** The Conference Name field was not multilingualize-able. This has been fixed.

**Upgrade citeproc-js** Update citeproc-js to 1.1.99.

1.2.13 v4.0.29.8m68

Update jurisdictions from Legal Resource Registry.

1.2.14 v4.0.29.8m67

**Translator for legal cases** Added the Translator creator to the Case type.

This release is an update to address a number of minor bugs uncovered since v4.0.29.6m62 went live, and to merge in some upstream changes from Zotero.

**Juris-M fixes**

**Bugfixes for document cite extraction** Thanks to patient feedback from Hem Sras, bugs introduced by the document cite extraction code have been fixed. If you experienced stability issues in the word processor plugins, these should be resolved in this release.

I am happy to confirm that document cite extraction is at last working well, as of this 4.0.29.8m66 release, after bugfixes on several fronts.

**Import translation fixes** Thanks to detailed feedback from Emiliano Heyns, the author and maintainer of the Better BibTeX plugin for Zotero, numerous bugs in Juris-M import have been fixed. Failures ranged from records that could crash the import translator, to records that would lose data or place it in the wrong field. Export and import of CSL JSON and Zotero RDF records, in particular (the two formats capable of losslessly round-tripping Juris-M records) should now be more satisfactory.

**Proper composition of synched items** This is a change with no visible effects. The Zotero sync servers recognize only fields that are present in official Zotero. To make Juris-M sync-compatible with Zotero, at sync time the extra field data added to Juris-M records is removed from sync items, and placed in the Extra field. When server-side items are then synced to another Juris-M client, the encoded data is meant to be restored to the relevant fields. This is invisible to the user in the Juris-M client (although the encoded data is visible in the online view of some items).

The bug was that on sync-down, this extra information was being stored in the database Juris-M record, although it was properly assigned to fields when the items were opened. This would potentially be a problem during some upgrades, when database records are accessed directly before Juris-M startup. No such upgrade will happen in the medium term, but after Zotero 5.0 goes live, we will need to perform migration steps. By fixing this small anomaly now, we can assure a smoother transition to the new architecture, probably toward the end of this calendar year.

**citeproc-js fixes**

See the changes for citeproc-js v1.1.98 for details.
Fixes inherited from Zotero

Zotero IDs In another change with no visible impact to the user, new code has been backported from Zotero 5.0 to generate internal IDs applied to Zotero (and Juris-M) items.

Search-as-you-type and TAB key in creator fields For manual entry, a patch from Zotero to which I contributed in a minor way now properly sets two-author names from the search-as-you-type list in the lastName and firstName fields when the TAB key is pressed.

1.2.15 v4.0.29.6m62

This is a followup release to v4.0.29.6m60, covering JM Standalone and the Firefox plugin. The changes are few but meaningful. Highlights:

Document cite extraction In student supervision and collaboration, projects often start with citations drawn from a private library. When the author wishes to share the content with others, a mechanism is needed to copy references to a shared library while preserving links to the document. I added support for this two years ago, but it was unreliable: it would often fail on large documents.

Document cite extraction has been fixed in this release. If you follow the original instructions, it should work smoothly now.

Bibliography editing There is a plugin button in the word processor for editing bibliographies. Entries edited through the Zotero/Juris-M plugin are preserved across refreshes of the document, in the same way as directly edited citations. Changes to the processor over the past year had broken this: the text came through to the editor in a corrupted state, and a month or so ago it stopped working altogether.

Bibliography editing has been fixed in this release. It should Just Work.

Icons Juris-M has its own logo, which was used in most places but not all. Zotero recently made some changes to their own logo styling, which I followed in haste, and badly. On some systems with high-resolution displays, the toolbar icon disappeared altogether.

These display issues have been fixed, and the Juris-M logo should now appear consistently across the product.

JM Standalone with JM for Firefox When Zotero for Firefox is used with Standalone Zotero, clicking on the Zotero icon in the browser is meant to raise Standalone to the foreground. When Standalone is running, and using the same database as the Firefox plugin, the latter is meant to kick into “connector mode,” and it is meant to shift back to “full Zotero” when Standalone is closed.

These features were not working properly in the Juris-M versions. The browser plugin would crash when JM Standalone was started after the browser; and foregrounding often did not seem to work correctly either. I have studied the protocols that carry communication between the two processes, and this is now working better in Linux, at least. I haven’t tested under Windows or the Mac, but you may have better experience there as well.

ZotFile returns Due to code-signing requirements, and as a matter of general etiquette and sound engineering, separate products are meant to have separate system IDs. In the early development of “Multilingual Zotero,” I left the Zotero ID unchanged. Times are changing, and I gave JM for Firefox its own ID last year. I cheated in JM Standalone, though, until a week ago—and when I made the change to improve consistency, JM Standalone refused to install ZotFile, an add-on with some very nice features for managing PDFs.

The developer of ZotFile has kindly added the Juris-M ID to the plugin’s list of accepted companion tools. I have also added a clone of ZotFile to the Juris-M site that will update itself automatically when new versions come out, and bundled it with JM Standalone to give it more exposure.
1.2.16 v4.0.29.6m60

There are many changes to the infrastructure behind this release, and few changes to functionality apart from bug fixes. This back-room work will allow quicker releases, and lays a solid foundation for the development of legal style modules. For a summary of the changes to the processor, see the citeproc-js documentation. Concerning Juris-M itself, note the following:

Processor code on GitHub Most citation-related programming activity takes place on GitHub, and I finally bit the bullet and moved the citeproc-js code there, for easier deployment and smoother collaboration with developers.

Automatic updates The browser plugins should update automatically again, after a manual install of the latest versions. The same should be true of plugins embedded in the Standalone binaries (touch wood).

Site translators A glitch that blocked the recognition of newly added site translators has been fixed.

Simpler legal style modules The legal style modules have been revised to follow a new, smarter framework for legal cites. We are now set to begin extending jurisdiction coverage.

Style development tutorial update The Juris-M Style Development editor tutorial has been revised to reflect the new, greatly simplified CSL-M coding requirements supported by this release.

JM for Firefox with JM Standalone The Firefox plugin (or other browser connectors) and the JM Standalone client are almost playing nice together. You must install a handler for the zotero://select protocol to make it work on Mac OS X or on Linux. Under Linux, it has been tested and is known to work. On Windows, you must start the browser after JM Standalone. I’m not sure of the cause yet, but if started in that order, the (M) button will foreground JM Standalone as expected.

1.3 Juris-M Extras

1.3.1 Introduction

A few special extensions are built into that are not currently available in mainstream Zotero. I tend to code these things when I see a need for them. Since my sense of need is stronger than my skill as a coder, if often happens that Team Zotero later introduce a solution to the target problem that is of much higher quality than my garage-mechanic effort. So if there are blemishes on the tools described in this section, and if I seem reluctant to do more than keep them running in their rudimentary form, take heart: better things are likely around the corner.

1.3.2 Document cite extraction

One of the current limitations of Zotero for collaborative work is that document citations are tightly bound to the library from which they originate. When a project begins with citations drawn from the author’s own My Library, there is no simple way to share the live citations with collaborators or reviewers. is heavily used by students of our own faculty, and this is a common pattern over the course of supervision. I implemented cite extraction in 2014, but it was buggy. It took two years, but the bugs have been addressed, and it now works reliably. The steps for its use by -only users and for users of mainstream Zotero, are listed below.
Extracting cites (Juris-M only)

1. In Juris-M, create a group library to hold the recovered citations (recovery to My Library is not supported).
2. Sync JM Standalone to show the group library in the client.
3. With running, open a document, and in the word processor open Document Preferences. Open the tab for “Project Name.” Set a nickname for the project (anything will do), and hit Enter, then tick the box next to “release for editing” and select the group library you have created.
4. When you close Document Preferences, may hang briefly while creating items for citations in the document. When it returns, click “Refresh” to pick up any items that it missed on the first pass.
5. Save the document (which is now linked to the group library items exclusively). Use it as your new working copy.
6. Sync to push the newly created items to the group library in your Zotero account.
7. Invite other users to the Zotero group you have created.

Extracting cites (for use in Zotero)

1. From the Juris-M site, install JM Standalone, a variant of Zotero. You may need to stop or disable Zotero to run it, but it will make a copy of your Zotero database at startup, and your existing Zotero database will not be affected.
2. Configure to sync to your Zotero account.
3. In Juris-M, create a group library to hold the recovered citations (recovery to My Library is not supported).
4. Sync JM Standalone to show the group library in the client.
5. With running, open a document, and in the word processor open Document Preferences (same as for Zotero). Open the tab for “Project Name.” Set a nickname for the project (anything will do), and hit Enter, then tick the box next to “release for editing” and select the group library you have created.
6. When you close Document Preferences, may hang briefly while creating items for citations in the document. When it returns, click “Refresh” to pick up any items that it missed on the first pass.
7. Save the document (which is now linked to the group library items exclusively). Use it as your new working copy.
8. Sync to push the newly created items to the group library in your Zotero account.
9. You can now stop (or remove it from your system entirely).
10. Open Zotero and sync. The group library should appear in your client, and the document should be linked to the items it contains.

1.4 Multilingual Usage
1.4.1 Introduction

Zotero itself provides some nice multilingual support, and it is continuously improving. All content is stored in Unicode; the locale used for labels and date forms in generic styles can be changed easily; and search functions recognize Asian scripts.

adds the ability to store language variants of individual fields, and flexible support for selecting the variants used in citation output. Those two features add significant complexity, and some functionality, and conventions for its use, are not obvious on the surface. This section provides guidance notes to help users explore the possibilities for support of multilingual research projects.

1.4.2 Original-language metadata

The first and most important principle is that item metadata should always be recorded in the original language in the first instance. Translations and transliterations can be entered later as they are needed; but the purpose of a citation is to lead the reader or the researcher back to the original source. If the title of a document in Russian, Khmer, Laotian or Japanese is entered as an English translation, data is lost—the reader is forced to guess at the original title if they want to find the original document. Therefore, all item metadata (except for dates) should be recorded in the original language. The variants can be added separately at a later time.