

Dear Abel and SciELO colleagues:

From the moment Redalyc decided to adopt the XML-JATS publishing model, we thought of doing it in such a way that it would make the article mark-up process easier for the editors; therefore, the slogan: one model, thousands of editors, multiple platforms. We consider that the adoption of this standard will become an opportunity to generate a software that would allow the South to connect with global science and generate a non-commercial, collaborative and sustainable publishing model in LAC. Redalyc, through Marcalyc, wishes to show that it is possible that our journals from the south adopt the best technological standards outside of big publishing companies.

Redalyc made a decision in September 2015, as we announced you in that moment, we worked during a year in the generation of a software, we presented it in its beta version in September 2016 and released the stable version 1 on 9th of December 2016, with which we reassured our commitment with the visibility of Latin-American science.

Redalyc's strategy for the adoption of the XML-JATS standard is based in two principles: **professionalization** of editors and **reuse of files**.

- 1. Professionalization of editors: Redalyc developed and released for use of the editors of the Marcalyc Mark-up System, a platform to obtain -free of charge-, for each article from a journal the following files: XML under the JATS standard (validated by the international standard) available for download, smart article viewer and HTML available in Redalyc, PDF and ePUB available for download and XML SciELO version also available for download. Also, we are constantly offering courses on XML technology training, JATS international standard, the use of the Marcalyc system, optimization of the editorial process of the journals, and benefits from the mark-up products.
- 2. **Reuse of files**: Redalyc accepts XML files generated by other platforms, such as: XML SciELO, native mark-up with tools like oXygen and mark-up with third parties that generate XML JATS validated by the international standard. This procedure implies for Redalyc the adaptation of its informatic systems, in order to be tolerant to the variations presented in the XML mark-up between different platforms that, even though they are JATS compliant, they differ due to diverse adoptions of the standard, various mark-up methods and tools, different versions of the standards, among other causes. Tens of journals feel more comfortable with the SciELO mark-up and they are simply sending us their PDF. Perfect! that





is what it is all about, empowering and strengthening editors so that the efforts come together in the improvement and consolidation of the regional scientific communication.

Marcalyc is in constant improvement and innovation. In three months of 2017, there have been three more versions released, with the following improvements:

Marcalyc Version 1.3 March 1st 2017

- 1. New PDF styles available! After finishing the mark-up of the article, different formats are shown and a preview is offered before its generation.
- 2. Improve the control in each session. Now it automatically logs out after a certain amount of inactive time, so that the editor does not have to worry about login out.
- 3. A new version for uploading own PDF to full text of the article is implemented, in which the editor now has the chance to upload different PDF files, depending on the languages in which the work is available.
- 4. Support to mark external links as alternative links.
- 5. Visualization of all the types of author identifier that have been marked in the obtained products.
- 6. Improves the functioning by uploading the outstanding image of the article.
- 7. Support for the year election from 1600 in the references mark-up.
- 8. Help message in the product download site for its handling coming from the editor.
- 9. Upgrades and minor corrections in the visualization of data of the article in the smart viewer.

Marcalyc Version 1.2 February the 3rd 2017

- The improved version of the mobile viewer is implemented, which includes a new section that contains summaries and keywords, rearrangement of the section tabs, cover of the article that shows its main information, selection of menu language and some viewer descriptions. Also, the full screen option is added, to be used in reading mode.
- 2. It informs of incorrectly marked references, as well as figures, tables and equations.
- 3. Improvement in the election of the author's affiliation country.
- 4. Alphabetic arrangement of buttons in the tool bar in the marker.
- 5. Inside the contents table of the journal, the numbers that have been imported from the XML JATS from SciELO are included.
- 6. Message that informs when an article will be available online after its markup.
- 7. The error related to the visualization of images in the gallery of an article to be selected was corrected.



Marcalyc Version 1.1 January the 11th 2017

- 1. Possibility to insert the image of an equation in any position of the text in a paragraph.
- 2. Alphabetic arrangement of the buttons of the marker's superior menu.
- 3. The problems in the functioning of the draggable elements were corrected.
- 4. The importance of the editor-type author is highlighted in the cover of the XML JATS generated cover.
- 5. The drop-down tab of the viewer is highlighted.
- 6. Change of style in the name and affiliation of the author in the light HTML.
- 7. Consideration of several paragraphs in the notes in the table in the light HTML.
- 8. Standardization of the indentation in notes and references.
- 9. Standardization of indentation in the author and conflict notes in the smart viewer
- 10. Corporative authors appear in the tab of the smart viewer.
- 11. The videos in the help site are being called from Youtube.
- 12. The option of deleting an article entered by Marcalyc is enabled for any number.
- 13. Help messages for when the PDF and the highlighted image are being uploaded were added.
- 14. The bugs when uploading the highlighted image were corrected.
- 15. The user manual was made available for PDF download.
- 16. Access form the login site to Marcalyc's help site.
- 17. The upload interface for PDF, HTML and outstanding image was restructured.
- 18. The option to delete highlighted image in the article was added.
- 19. Floating window to show tree attributes.
- 20. Messages for the user were added inside the tags tree of the help site.

Marcalyc Version 1.0 stable December the 9th 2016

- 1. Automatic recognizing of the new types of citation: ASA, IEEE, ABNT, ISO
- 2. 690 y 690-2 (2007 version) y NLM.
- 3. Automatic recognizing of identifiers in the references and notes inside the article.
- 4. The cover image of the article is accepted in GIF format, as well as inside the gallery of the full text of the article.
- 5. The editor can upload its own full-text PDF of the article.
- 6. The smart viewer of articles is shown in the original language in which the article was written.
- 7. Personalization of the language inside the article smart viewer.





- 8. New didactic support site, which includes video tutorials, videos of the XML JATS certification course, user manual, access to the Marcalyc blog and a FAQs module.
- 9. The smart viewer shows new elements from the XML JATS standard, besides being contained in the HTML, PDF and ePUB files.
- 10. News in the specification "Marcalyc 1.2" of the XML JATS, which are put in detail in the following section.
- 11. The required identifiers were included and the restrictions that the SciELO v1.4 Publishing Schema requires were validated.
- 12. The element for comment and its corresponding tag <element-citation> can now be repeatable inside the document.
- 13. The editor can upload its own full-text PDF of the article.
- 14. The figure or graphic identifying element and its corresponding tag <object-id> can now be repeatable inside the document.
- 15. A predefined list with about 100 options for the mime-subtype element in the marker was added.
- 16. The elements of product> when the article is a review of an article or book were added.
- 17. When selecting a publishing year inside the review, the value of the list is reflected in the tool bar.
- 18. When supplementary material is added, the default title of the section is "Supplementary material".
- 19. The year of the references can only have four digits.
- 20. The validation that the image in the article cover has a size equal or bigger than 382x100 pixels is done.
- 21. A preview for the cover image was added.
- 22. The counting of tables and figures was corrected.
- 23. The bold letters are respected when the XML document is generated.
- 24. Pasting without style of text coming from sites outside the marker.
- 25. In the XML JATS viewers, the problems of the accents and special characters were corrected.
- 26. The italic style in the verse was placed and putting the word "Font: " en the corresponding tag (attrib).
- 27. The paragraphs of reviews or articles that do not contain sections in the smart were set apart.
- 28. The link in the viewer to the full number in the smart viewer was corrected.
- 29. The small caps style in the generated ePUB was corrected.
- 30. The ePUB puts in the right order summary and key words.
- 31. "Edited by " was added in the light HTML and ePUB when the author is editor-type.
- 32. Right order was given to the authors in the superior letterhead of the PDF.
- 33. The publishing date of the article was added in the markup products.



- 34. In the number formulary, it was validated so that no doubled numbers are added.
- 35. Personalization of Marcalyc permissions by work groups: Editors and internal Redalyc.
- 36. Numbers for a year next to the current can be added.

Marcalyc Versión 1.0 beta. September the 1st 2016

- 1. Works inside a web environment, in any web browser.
- 2. Compatible with multiple platforms (Linux, MAC OS o Windows).
- 3. Does not require previous article formatting.
- 4. The markup of the article is based on the selection and automatic pasting of elements.
- 5. The markup interface is composed by text formularies, buttons and drop-down lists
- 6. Does not require an advanced technical knowledge from the user.
- 7. Automatic recognition of the types of citation: APA, AMA, Chicago, Harvard, MLA and Vancouver.
- 8. Each article can be personalized with a cover image, which will be visible from the table of contents of the journal.
- 9. The accepted image formats are JPG and PNG.
- 10. The Marcalyc system allows to download an article in the following formats: smart viewer, PDF, ePUB, HTML and mobile viewer.
- 11. Downloadable XML JATS.
- 12. The markup products can be downloadable or sent by email.
- 13. XML JATS compatible with the JATS4R standard.
- 14. Inside the markup products a XML JATS adapted for the specification of the SciELO Publishing Schema is generated.
- 15. The XML JATS viewers are distinguished for having a responsive design.

Marcalyc pretends to release a set of upgrades in the following months:

- Equation markup con MathML
- Table markup.
- Sub article markup.
- Table reading and equations marked with MathML in the output products: PDF, HTML, ePUB, viewers.
- Besides holding the DOC, DOCX and HTML formats as input to Marcalyc, include PDF.
- Develop access to Marcalyc for authors, in such a way that a journal can receive the marked version made by its authors.





On the other hand, confusions between editors persist, since if a journal is indexed in Redalyc and in SciELO it should not be necessary for the markup to be made twice. Therefore, Redalyc adjusts to the JATS standard under the international JATS4R specification (JATS for reuse) to generate an XML that can be understood by any organization compatible with the standard; under this premise Marcalyc, the markup software of Redalyc, was created.

The variations of the implementation of the standard between Redalyc and SciELO are present in 20 of the more than 200 tags that the standard considers. Redalyc developed a converter to accept the XML JATS files that an editor generates using SciELO's publishing scheme and can then be published by Redalyc with all the enriched digital reading formats that Redalyc offers, amongst which are: article smart viewer, mobile viewer, PDF, HTML and XML JATS4R.

Besides, Redalyc has developed a second converter, to transform the XML JATS files generated with Marcalyc into XML JATS files in accordance with SciELO's publishing scheme SPS 1.5. This XML generated by Marcalyc passes SciELO's scheme validator.

Tag	Transformation that Marcalyc applies to the XML from Redalyc to generate the SciELO version	
xml-model	Delete	
<article></article>	Delete the @xmlns:ali, @xmlns:xsi attributes, in the @specific-use attribute change the value "Marcalyc 1.2" to "sps-1.5"	
<journal-id></journal-id>	In the attribute @jornal-id-type the value "redalyc" is changed to "publisher-id", besides this tag must have a content, it is decided to use the ISSN of the journal.	
<journal-title></journal-title>	Delete the @specific-use attribute	
<publisher-loc></publisher-loc>	Take away the tag <country></country>	
<article-id></article-id>	In the attribute @pub-id-type it can be changed the value of "art-access-id" for "other". Now they are using. "publisher-id", so instead of other use publisher-id. The	





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attribute specificuse= "redalyc" is deleted, besides this tag must have a content, it is decided to use a consecutive number according to the order of the article in the content table as SciELO does, for example: <article-id pub-id-type="other">00001 </article-id>. New example would be: <article-id pub-id-type="publisherid"> 00001 </article-id>. In Brazil, the use of the DOI of a scientific article is mandatory, so in the SciELO publishing scheme it is mandatory too, so it was decided to use <article-id pub-idtype=" doi">no disponible</article-id> if the article does not have DOI. The @xml:lang attribute is deleted. <article-title> The @xml:lang attribute is added. <trans-title-group> <trans-title> The @xml:lang attribute is deleted. The @name-style attribute is deleted. <name> in <contrib> The values of the @fn-type attribute are <fn> in <authornotes> changed to "other". <date> in <history> The @publication-format attribute is deleted. <ali:free_to_read/> This tag is deleted. in <permissions> clicense> The @license-type and @xml:lang attributes are added. The content is changed for the automatic clicense-p>



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	text that SciELO uses.	
<ali:license_ref></ali:license_ref>	This tag is deleted.	
<related-article></related-article>	Add the id, for example <related-article< td=""></related-article<>	
	id="ra1">	
<abstract></abstract>	The @xml:lang is deleted	
<sec></sec>	Does not use the @sec-type attribute	
<xref></xref>	Delete the <xref> from the terms of the</xref>	
	glossaries, since SciELO does not make this	
	links.	

Comparing of the values of the @ref-type and @rid attributes in the <xref> tag:

Redalyc		SciELO	
@ref-type	@rid	@ref-type	@rid
aff	aff1	aff	aff1
арр	app1	арр	app01
		author-notes	
bibr	redalyc_clave artículo_ref1	bibr	B1
		boxed-text	
		contrib	
corresp	corresp1	corresp	c1
disp-	ee1	disp-formula	e1
formula			
fig	gf1	fig	f1
fn	fn1	fn	fn1
other	GL1	No definido	No definido
		sec	
		supplementary- material	suppl01
table	gt1	table	t1
		table-fn	





This way, we send you two files with articles generated by Marcalyc, under the SciELO scheme, for you to check them, give us feedback and so we can generate spaces to exchange our modifications and can get to the best agreements possible for the benefit of the editors to use the markup system that they consider more adequate and efficient, generating XML JATS compatible between SciELO and Redalyc platforms, which will strengthen editors and regional communication.

With nothing else to add, we put our XML files to your consideration. Once again, we thank it was SciELO and its usage of the XML the source of inspiration and challenge to develop Marcalyc.

Dr. Eduardo Aguado-López Director of Redalyc Dra. Arianna Becerril-García Director of Technology and Innovation Redalyc

