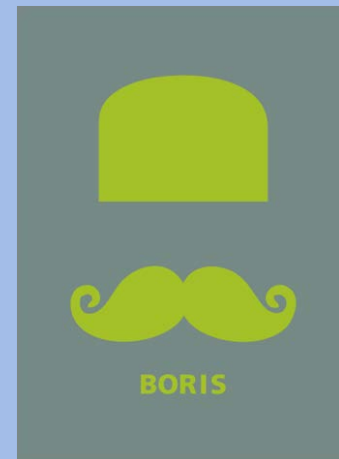


New implementations of and inquiries in features for BORIS

BORIS – Bern Open Repository and Information System

Dirk Verdicchio, Markus Müller
Bern University Library



June 11, 2015 | Open Repositories 2015 | Indianapolis

- Intro
 - University of Bern, BORIS & how we get feedback
- New developments
 - ① Watermarks on downloaded documents
 - ② Eprints displays local time instead of UTC
 - ③ Change notification by email
 - ④ Using Sherpa/Romeo API to validate copyright
- Appendix
 - BORIS @ GitHub



BORIS @ GitHub

① Watermarks on downloaded documents



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- Components changed
 - `../archives/BORIS/cfg/cfg.d/watermark.pl`
 - `../archives/BORIS/cfg/lang/en/phrases/watermark.xml`
 - `../archives/BORIS/cfg/plugins/EPrints/Plugin/Convert/AddWatermark.pm`
- GitHub Refs
 - <https://github.com/UB-Bern/boris/commit/c4bac04ae0ba1b2a4f867e34294e2cd72b6b57e1>
 - <https://github.com/UB-Bern/boris/commit/b9858d6708475f2b3b0c3abdd5f226f8405ebd31>
 - <https://github.com/UB-Bern/boris/commit/5324683459151a6d507a1902729207cf47c7966d>
 - <https://github.com/UB-Bern/boris/commit/126327f7964fb12d72a78f9c210ac1c2cbfa77a3>
 - <https://github.com/UB-Bern/boris/commit/8a989c65801ee23dd89779bff67191f43c6dfd0a>
 - <https://github.com/UB-Bern/boris/commit/8611e3bdb899cf38a3ab1d5ee1d52d899b8ed72c>
 - <https://github.com/UB-Bern/boris/commit/5ee6ead445a9a6a23754cc6df7535ef2ba1f60f9>



- Students: 17'428
- Faculty: 2'413 FTE
- Publications/year: \approx 6'500



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BORIS – Bern Open Repository and Information System

- 2012: Open Access Policy
- Nov. 2013: Institutional Repository
 - Hosted by the university's IT services
 - Software: EPrints
 - Customization made by Eprints Services
- Aims
 - Open Access repository
 - Platform for submitting publication data to research evaluation
 - Providing information about research projects (future)

Deutsch | English | Français

Logged in as Markus Müller | Logout

BORIS

Bern Open Repository and Information System


Home | Manage deposits | Manage records | Profile | Alerts | Review | Admin | ORCID | Statistics

Advanced search

Browse by

- Institute
- Contributors
- Contributors Bern
- Year
- Info
- Author FAQ
- How to use BORIS
- Documentation
- About BORIS

Visualisation



News

Tweets

BORIS UniBern @BORIS_UniBe
Monthly statistics for BORIS: May 2015
openaccess-unibe.ch/atlascollab.net/wiki/x/AoDmAg
Expand

Christian Althaus @c_althaus
BioRxiv database Post-print is publicly available at @BORIS_UniBe: openaccess-unibe.ch/60994/
Retweeted by BORIS UniBern
Expand

BORIS UniBern @BORIS_UniBe
Elsevier has a new article sharing policy. It's a step backwards argues Kevin Smith: blogs.library.duke.edu/scholcomm/2015... #openaccess #scholcomm #oa
Show Summary

Latest Additions

- ATLAS, Collaboration; Agostoni, Marco; Beck, Hans Peter; Cervelli, Alberto; Ereditato, Antonio; Gallo, Valentina; Haug, Sigve; Krüker, Tobias; Marti, Lukas; Meloni, Federico; Schneider, Basil; Sciacca, Gianfranco; Stramaglia, Maria; Stucci, Stefania
1. Antonia, Weber, Michael (2014). Measurement of the $t\bar{t}$ production cross-section using b -tagged jets in pp collisions at $\sqrt{s}=7$ and 8 TeV with the ATLAS detector. European physical journal. C - particles and fields, C74(3109) EDP Sciences 10.1140/epjcs/s10052-014-3109-7
- ATLAS, Collaboration; Agostoni, Marco; Beck, Hans Peter; Cervelli, Alberto; Ereditato, Antonio; Gallo, Valentina; Haug, Sigve; Krüker, Tobias; Marti, Lukas; Meloni, Federico; Schneider, Basil; Sciacca, Gianfranco; Stramaglia, Maria; Stucci, Stefania
2. Antonia, Weber, Michael (2014). Search for the Standard Model Higgs boson decay to $\mu\mu$ with the ATLAS detector. Physics letters. B, B738, pp. 68-86. Elsevier 10.1016/j.physletb.2014.09.008
- ATLAS, Collaboration; Agostoni, Marco; Beck, Hans Peter; Cervelli, Alberto; Ereditato, Antonio; Gallo, Valentina; Haug, Sigve; Krüker, Tobias; Marti, Lukas; Meloni, Federico; Schneider, Basil; Sciacca, Gianfranco; Stramaglia, Maria; Stucci, Stefania
3. Antonia, Weber, Michael (2014). A neural network clustering algorithm for the ATLAS silicon pixel detector. Journal of instrumentation, J09090209 Institute of Physics Publishing IOP 10.1088/1748-0221/9/09/P090209
- ATLAS, Collaboration; Agostoni, Marco; Beck, Hans Peter; Cervelli, Alberto; Ereditato, Antonio; Gallo, Valentina; Haug, Sigve; Krüker, Tobias; Marti, Lukas; Meloni, Federico; Schneider, Basil; Sciacca, Gianfranco; Stramaglia, Maria; Stucci, Stefania
4. Antonia, Weber, Michael (2014). Comprehensive measurements of t -channel single top-quark production cross sections at $\sqrt{s}=7$ TeV with the ATLAS detector. Physical review. D - particles, fields, gravitation, and cosmology, D90(11), p. 112006. American Physical Society 10.1103/PhysRevD.90.112006
- ATLAS, Collaboration; Agostoni, Marco; Beck, Hans Peter; Cervelli, Alberto; Ereditato, Antonio; Gallo, Valentina; Haug, Sigve; Krüker, Tobias; Marti, Lukas; Meloni, Federico; Schneider, Basil; Sciacca, Gianfranco; Stramaglia, Maria; Stucci, Stefania
5. Antonia, Weber, Michael (2014). Search for the direct production of charginos, neutralinos and staus in final states with at least two hadronically decaying taus and missing transverse momentum in pp collisions at $\sqrt{s}=8$ TeV with the ATLAS detector. Journal of high energy physics(96) Springer 10.1007/JHEP10(2014)096

Top 5 Downloads

1. Die Hauptstadt existiert nicht	1,477
2. Investigation of the Network Construction Behaviour on Social Networking Sites	1,162
3. Investigating the value of privacy on online social networks: conjoint analysis	679
4. Injuries to permanent teeth. Part 3: Therapy of root fractures	653
5. Multimedia Human-Centric Networking: Concepts, Technologies and Trends	577

10 25 50 all

BORIS supports OAI 2.0 with a base URL of <http://boris.unibe.ch/oai2>



- Library
 - Nicole Bögli
 - Markus Müller
 - Regula Oppliger
 - Regula Schatzmann
 - Désirée Stalder
 - Andrea Stettler
 - Jan Stutzmann
 - Dirk Verdicchio
- IT services
 - Christian Friedli
 - Bettina Schmidt
- External partner
 - Peter West (Digital Repository Services)



- Courses:
 - Regular course offer for submitter and for editors
 - «Inhouse» courses for institutes or research groups
- Ticketing system
- Mailing list for editors
- BORIS-Team is working close together with the Center for Development and Environment (CDE) and the Institute of Social and Preventive Medicine (ISPM)
- BORIS-Team is working close together with Vice-Rectorate Research and the Dean's Office of the Medical Faculty which are responsible for research evaluation
- Workflow allows contact to different user groups and stakeholders



Regular contact to stakeholders

Insert/import metadata & full text	Control metadata	Publication rights, embargos, licenses	Inform researchers	Check completeness of publications	Evaluation
Submitter (Researchers/ Delegates)	Editors (Librarians, Delegates)	BORIS-Team/ Researchers	Q-Assistants	Researchers	Vice-Rectorate Research & Dean's office of the med. faculty



① Watermarks on downloaded documents

- Why Watermarks?
 - Information about the origin of download
 - No hindrance for indexing (compared to cover sheets)¹
 - No waste of paper

(1) Tonkin, Emma I., Stephanie Taylor, and Gregory J. L. Tourte. "Cover sheets considered harmful." In Mining the Digital Information Networks, 17th International Conference on Electronic Publishing. ELPUB. Karlskrona, Sweden: IOS Press BV, 2013. <http://ebooks.iospress.nl/publication/33459>



① Watermarks on downloaded documents

- Component generates a PDF with watermark added
- Original document is not altered
- Download item is cached; regenerate when date changes

Letter
pubs.acs.org/OrgLett

2'-Fluorination of Tricyclo-DNA Controls Furanose Conformation and Increases RNA Affinity

Alexander J. Leumann, Michal Medvecký, and Christian J. Leumann*

Department of Chemistry and Biochemistry, University of Bern, Freiestrasse 3, CH-3012 Bern, Switzerland

Supporting Information

ABSTRACT: The synthesis of 2'-fluoro tricyclo-DNA pyrimidines with fluorine in the ribo-configuration and incorporation into oligodeoxynucleotides was accomplished. The parent tc-T nucleoside, the 2'-F-RNA-tc-T is in the 2'-exo conformation in the crystal. F-RNA-tc-T was found to stabilize duplexes with +2 to +4 °C in T_m /mod. F-RNA-tc-nucleosides mix the DNA backbone and thus open up possibilities of hetero- and mixed-(DNA/tc-DNA) backbone oligonucleotides for therapeutic applications.

Functional oligonucleotides bind to cellular RNA obeying Watson-Crick rules, thereby controlling RNA. A variety of antisense mechanisms.^{1,2} From all modifications that have been synthesized and characterized over the last three decades, the class of rationally restricted oligonucleotide analogues underpins the highest increase in affinity to any RNA and, in general, also shows a high degree of biocompatibility. The best characterized examples for which in vivo availability are the locked nucleic acid (LNA),³⁻⁷ nucleic acid (HNA),⁸⁻¹¹ and tricyclo(tc)-DNA. tc-DNA has recently been shown to exhibit very strong skipping properties in the context of Duchenne's muscular dystrophy in the mdx and dko mouse models in all tissues including heart, diaphragm, and brain after intravenous injection.¹²

Fluorinated oligonucleotide analogues such as the 2'-deoxy-2'-fluoro nucleic acids (F-ANA),¹³⁻²¹ the 2'-deoxy-2'-F-RNA,²² the fluorohexitol nucleic acids (F-HNA) and other modifications²³⁻²⁸ have recently attracted interest due to the electrostatic impact that the fluorine substituent exerts on the furanose conformation, in some cases to stronger RNA binding. In addition, unique medicinal chemical properties arising from the hydrophobic properties of organofluorine compounds.

A striking example, highlighting the differential fluorinated oligonucleotides to proteins, is the formation of an ILF 2/3 complex by a fluorinated antisense oligo to RNA transcripts in cells and in vivo, leading to alternative splicing patterns that are not observed in 2'-O-alkylated oligonucleotides.²⁹ Furthermore, magnetic properties of ¹⁹F offer additional possibilities for structure determination as well as for in vivo labeling.

We hypothesized that a fluorine substituent in the 2'-position of tc-DNA might exert additional steric and stereoelectronic control, driving the furanose unit within the tricyclic sugar scaffold toward the N-type conformation. From this, higher affinity to RNA can be expected. In addition, fluorine substitution may reinforce the favorable characteristics of tc-DNA such as high biostability and broad tissue distribution and could thus improve the therapeutic potential of tc-DNA. Here we present the synthesis and structural properties of the sugar component of F-tc-RNA and F-tc-ANA as well as two novel tc-nucleoside analogues (F-RNA-tc-T and F-RNA-tc-C) and the DNA and RNA binding properties of correspondingly modified oligodeoxynucleotides.

Synthesis of Monomers

A reasonable plan for the synthesis of the fluorinated tricyclo sugar involved the electrophilic fluorination of a suitably protected enol ether that should be easily accessible from the already known methyl glycoside 1 (Scheme 1).³⁰ From this procedure, we expected to have access to both sugars containing fluorine in the 2'-ribo- and arabino configuration. TMSOTf-induced elimination of the methoxy group in 1 under

Scheme 1. Synthesis of the F-ANA- and F-RNA tc-Sugar Units 5

Received: March 5, 2015
Published: April 2, 2015

ACS Publications © 2015 American Chemical Society 1950

DOI: 10.1021/acs.orglett.5b00962
Org. Lett. 2015, 17, 1950–1953

② Eprints displays local time instead of UTC

- Eprints time zone UTC vs local time zone CET
- Problems:
 - Makes it more difficult to trace and communicate changes
 - Users are irritated and think the repository does not work properly
- Solution:
 - Display local time



② Eprints displays local time instead of UTC

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BORIS
Bern Open Repository

Home

A Rational Approach for the Self-Assembly of Molecular Building Blocks in the Field of Molecule-Based Magnetism (eprint 68535 r13)

Moved from Review to Repository by Nicole Bögli at 20 May 2015 10:30:12 CEST

A Rational Approach for the Self-Assembly of Molecular Building Blocks in the Field of Molecule-Based Magnetism (eprint 68535 r13)


Modified by Nicole Bögli at 20 May 2015 10:30:12 CEST

Before	After
<place_of_pub>Chichester</place_of_pub>	<place_of_pub>Chichester</place_of_pub>
<rev_number>12</rev_number>	<rev_number>13</rev_number>
<lastmod>2015-05-20 08:29:45</lastmod>	<lastmod>2015-05-20 08:30:12</lastmod>
<eprint_status>buffer</eprint_status>	<eprint_status>archive</eprint_status>
<status_changed>2015-05-02 18:38:53</status_changed>	<status_changed>2015-05-20 08:30:12</status_changed>

Item Type:
Division/Institution:
Unibe Contribution:
Subjects:
ISBN:
Series:
Publisher:
Language: English
Submitter: Silvio Decurtins
Date Deposited: 20 May 2015 10:30
Last Modified: 20 May 2015 10:30
Publisher DOI: 10.1002/0470868015.ch7
URI: http://boris.unibe.ch/id/eprint/68535

② Eprints displays local time instead of UTC

- Approach: <https://github.com/eprints/eprints/issues/194>



jploski commented on 21 Jan 2014

Currently the "Last modification" date and other dates are displayed as they are stored in the database - in UTC time zone. It would be more sensible to render them in server's local time zone instead (our users complained about it).

../perl_lib/EPrints/Time.pm

Looking at documentation of EPrints::Time::render_date, it seems that it was intended so, but the implementation doesn't match spec. I suggest the following patch:

```
--- eprints-3.3.12-src/perl_lib/EPrints/Time.pm 2013-07-30 14:07:46.000000000 +0200
+++ eprints/perl_lib/EPrints/Time.pm      2014-01-21 22:35:04.000000000 +0100
@@ -419,6 +419,9 @@
     return $session->html_phrase( "lib/utls:date_unspecified" );
 }

+ # Convert UTC to local time zone, trim result to original resolution:
+ @l = @ {[ local_datetime(datetime_utc(@l)) ]}[0..$#l];
+
 my( $year, $mon, $day, $hour, $min, $sec ) = @l;

 # 1999
```

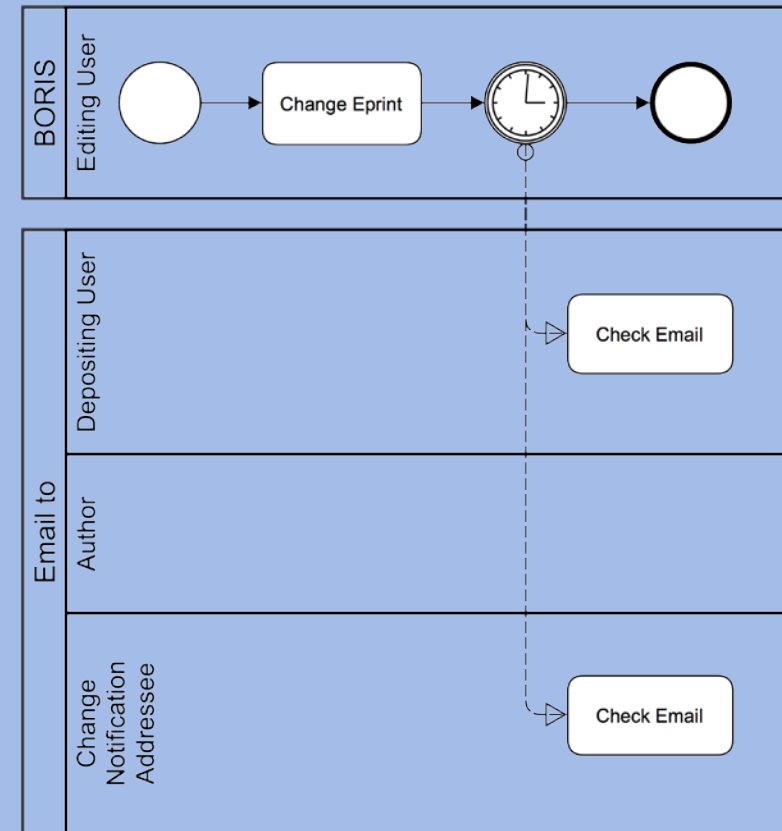
③ Change notification by email

- Problem
 - Only creators can make changes to items in the live archive
 - Creators who are not depositors cannot make changes to their items
 - Since the items in the live archive are basis for research evaluation we need to know about any modifications made in the live archive
- Solution
 1. Change ownership settings: Every contributor identified as member of the University is allowed to make changes
 2. Implement a notification system that informs the original depositor and the BORIS team about modifications in the live archive



③ Change notification by email

- Requirements (excerpt)
 - The system alerts the depositing user by Email on changes to an item while being in «Live Archive»
 - The system checks for changes at regular intervals
 - Authors being UniBE affiliates must be able to make changes to their contributions even when the item was submitted by some other person



③ Change notification by email

```
$ ./report_status_change BORIS --send_report --day
```

To further addressees:

To the depositing user:

This is an automatically generated change notification from BORIS

- Item: Test IR-265
- Item URL: <http://boris-dev.unibe.ch/1292/>
- Item type: Journal Article
- Date deposited: 30 Oct 2014 09:25
- Depositing user: Markus Müller
- DOI:
- PubMed ID:
- official URL
- related URL
- Date of modification: 30 Oct 2014 10:14
- Modifications made by:
 - Markus Müller
- Track modifications: [History](#)

Modified fields:

Item Status, Last Status Change, Metadata checked, Language, Item ID, Depositing User, Revision

For questions regarding this message please contact the BORIS Team (boris@ub.unibe.ch).

BORIS
<http://boris-dev.unibe.ch/>
Contact us at boris@ub.unibe.ch

UB_TICKET_BORIS

30. Oktober 2014 11:06

U

An: UB_TICKET_BORIS, Müller Markus
BORIS: change notification summary

This is an automatically generated change notification summary from BORIS

The following items were modified:

<http://boris-dev.unibe.ch/1292/>

- Item: Test IR-265
- Item URL: <http://boris-dev.unibe.ch/1292/>
- Item type: Journal Article
- Date deposited: 30 Oct 2014 09:25
- Depositing user: Markus Müller
- DOI:
- PubMed ID:
- official URL
- related URL
- Date of modification: 30 Oct 2014 09:30
- Modifications made by:
 - Markus Müller
- Track modifications: [History](#)

Modified fields:

Item Status, Last Status Change, Metadata checked, Language, Item ID, Depositing User, Revision, Directory, Full Text Status, Item Type, Fulltext checked, Metadata Visibility

For questions regarding this message please contact the BORIS Team (boris@ub.unibe.ch).

BORIS
<http://boris-dev.unibe.ch/>
Contact us at boris@ub.unibe.ch

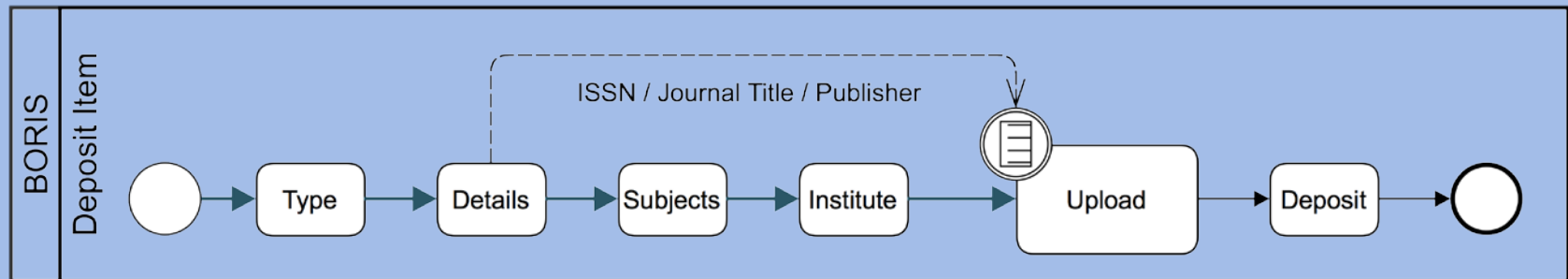
④ Using Sherpa/Romeo API to validate copyright

- Starting point
 - University's policy mandates upload of full texts
 - Obligation to check compliance with publisher policies
- Intention
 - Simplify and accelerate the process of reviewing the self archiving policies
 - Convincing researchers to upload their texts



④ Using Sherpa/Romeo API to validate copyright

- Approach
 - Lookup for publisher's policies through Sherpa/Romeo API when uploading full text by depositing user
 - Query by ISSN / Journal Title / Publisher



- Experience
 - Plugin works very well
 - Depositing users felt unable to cope with the setting
- Outcome
 - Plugin is a valuable aid to repository team for validation



④ Using Sherpa/Romeo API to validate copyright

★ Journal Title:	Science of computer programming
Journal Title Abbreviated:	SCI COMPUT PROGRAM
ISSN:	0167-6423
Publisher:	Elsevier

Information from
**SHERPA
RoMEO**

Update

Sherpa Romeo Lookup

Data refers to: **The Journal**

Matched journal: Current title (Science of computer programming) does not match Sherpa Romeo title (Science of Computer Programming) or it is not specified

Matched ISSN: 0167-6423

Matched Pub: Elsevier

RoMEO: This is a RoMEO **green** journal

Author's Pre-print: author can archive pre-print (ie pre-refereeing)

Restrictions: Author's Post-print: author can archive post-print (ie final draft post-refereeing)

Restrictions: Publisher's Version/PDF: author cannot archive publisher's version/PDF

Restrictions:

Authors pre-print on any website, including arXiv and RePEc
Author's post-print on author's personal website immediately
Author's post-print on open access repository after an embargo period of between <num>12</num> <period units="month">months</period> and <num>48</num> <period units="month">months</period>
Permitted deposit due to Funding Body, Institutional and Governmental policy or mandate, may be required to comply with embargo periods of 12 months to 48 months
Author's post-print may be used to update arXiv and RepEC
Publisher's version/PDF cannot be used
Must link to publisher version with DOI
Author's post-print must be released with a Creative Commons Attribution Non-Commercial No Derivatives License
Publisher last reviewed on 03/06/2015

These summaries are for the journal's *default* policies, and changes or exceptions can often be negotiated by authors.
All information is correct to the best of our knowledge but should not be relied upon for legal advice.

RoMEO Colour

Green Can archive pre-print and post-print or publisher's version/PDF

Blue Can archive post-print (ie final draft post-refereeing) or publisher's version/PDF

Yellow Can archive pre-print (ie pre-refereeing)

White Archiving not formally supported

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Archiving policy

Acknowledgements

Peter J. West

Digital Repository Services Ltd

pjw@repositoryservices.co.uk

<http://repositoryservices.co.uk/index.html>



Thank you!

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Appendix

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① Watermarks on downloaded documents

- Module used
 - PDF-API2-2.019
- Components changed
 - ../archives/BORIS/cfg/cfg.d/watermark.pl
 - ../archives/BORIS/cfg/lang/en/phrases/watermark.xml
 - ../archives/BORIS/cfg/plugins/EPrints/Plugin/Convert/AddWatermark.pm
- GitHub Refs
 - <https://github.com/UB-Bern/boris/commit/c4bac04ae0ba1b2a4f867e34294e2cd72b6b57e1>
 - <https://github.com/UB-Bern/boris/commit/b9858d6708475f2b3b0c3abdd5f226f8405ebd31>
 - <https://github.com/UB-Bern/boris/commit/5324683459151a6d507a1902729207cf47c7966d>
 - <https://github.com/UB-Bern/boris/commit/126327f7964fb12d72a78f9c210ac1c2cbfa77a3>
 - <https://github.com/UB-Bern/boris/commit/8a989c65801ee23dd89779bff67191f43c6dfd0a>
 - <https://github.com/UB-Bern/boris/commit/8611e3bdb899cf38a3ab1d5ee1d52d899b8ed72c>
 - <https://github.com/UB-Bern/boris/commit/5ee6ead445a9a6a23754cc6df7535ef2ba1f60f9>



② Eprints displays local time instead of UTC

- Components changed
 - `../perl_lib/EPrints/Time.pm`
- GitHub Refs
 - <https://github.com/UB-Bern/boris/commit/39684759110f1528bf8029267e99400772fe29af>



③ Change notification by email

- Components changed
 - `../archives/BORIS/bin/report_status_change`
 - `../archives/BORIS/cfg/cfg.d/report_status_change.pl`
 - `../archives/BORIS/cfg/lang/en/phrases/report_status_change.xml`
 - `../archives/BORIS/cfg/cfg.d/does_user_own_eprint.pl`
- GitHub Refs
 - <https://github.com/UB-Bern/boris/commit/8ec472fa9ff14b88bda03717b2634ae502d4cd0f>
 - <https://github.com/UB-Bern/boris/commit/53f4973b0b28d39907bb9d52a5a2239f5b8e7642>
 - <https://github.com/UB-Bern/boris/commit/a7bc7c7a447f4846fa87769cb81cd3e969cc446f>
 - <https://github.com/UB-Bern/boris/commit/db6b0827be1569585e7ab5f3be38f58fd52753a6>
 - <https://github.com/UB-Bern/boris/commit/c342a726a30a749f33d59c9ef299e2ca45901cd4>
 - <https://github.com/UB-Bern/boris/commit/b6f6631810f47bdfe2f12b357b6639a572560c4d>
 - <https://github.com/UB-Bern/boris/commit/2a989bd3e5fbb533e01820c5d3a725c9d08bf62a>
 - <https://github.com/UB-Bern/boris/commit/4b1c7272b2c5f090509586883ff7810483287583>
 - <https://github.com/UB-Bern/boris/commit/51825fa58247d88c6ef442159e62e78606191f8c>



④ Using Sherpa/Romeo API to validate copyright

- Components changed
 - ../archives/BORIS/cfg/cfg.d/eprint_fields.pl
 - ../archives/BORIS/cfg/cfg.d/sherpa_romeo.pl
 - ../archives/BORIS/cfg/lang/en/phrases/sherpa.xml
 - ../archives/BORIS/cfg/plugins/EPrints/Plugin/InputForm/Component/Field/Modal/SherpaRomeo.p
m
 - ../archives/BORIS/cfg/static/style/auto/sherpa.css
 - ../archives/BORIS/cfg/workflows/eprint/default.xml
 - ../archives/BORIS/cgi/sherpa_romeo_lookup
- GitHub Refs
 - <https://github.com/UB-Bern/boris/commit/abd45595877eee3b58acd201ae90fb0aaef1b225>

