

Invenio@HGF – status and perspectives

[sic!] Jülich – 2nd Invenio User Group Workshop

Jülich, 18. November 2013 | Alexander Wagner, for the Collaboration

Overview



- Partner
- Initial TODO
- Accomplishments
- Lessons learned
- Project group

Project Partners



Deutsches Elektronensynchrotron, Zentralbibliothek

≈ 2000 + 3000



Forschungszentrum Jülich, Zentralbibliothek

≈ 5000 + 1000



GSI Helmholtzzentrum für Schwerionenforschung, Bibliothek + Kern-IT

≈ 1050



Maier-Leibniz-Zentrum, Garching

≈ 300



RWTH Aachen, Hochschulbibliothek

≈ 9000

Museum Zitadelle Jülich

Institut für Experimentelle Kernphysik, Karlsruhe

Open for new **Partners!**

Serving now ≈ **17.000** people (+ visitors)

(≈ 260.000 documents + 67.000 Authorities)



Alexander Wagner, for the Collaboration

3 | 16

Starting out

Goal

Replace existing systems, at GSI build up from scratch.
User-centric design (users aka **scientists**)

- 1 “Learn Invenio” (thanks to CERN ☺)
- 2 Define wording. . . (different insitutions!)
- 3 Build infrastructure: **git** and friends
- 4 Build more infrastructure: **authorities** and friends
- 5 Build a **deployment scheme**: InstallInvenio and friends

We need to roll out **10+** instances
with **different** data sets and **keep them consistent** on code level

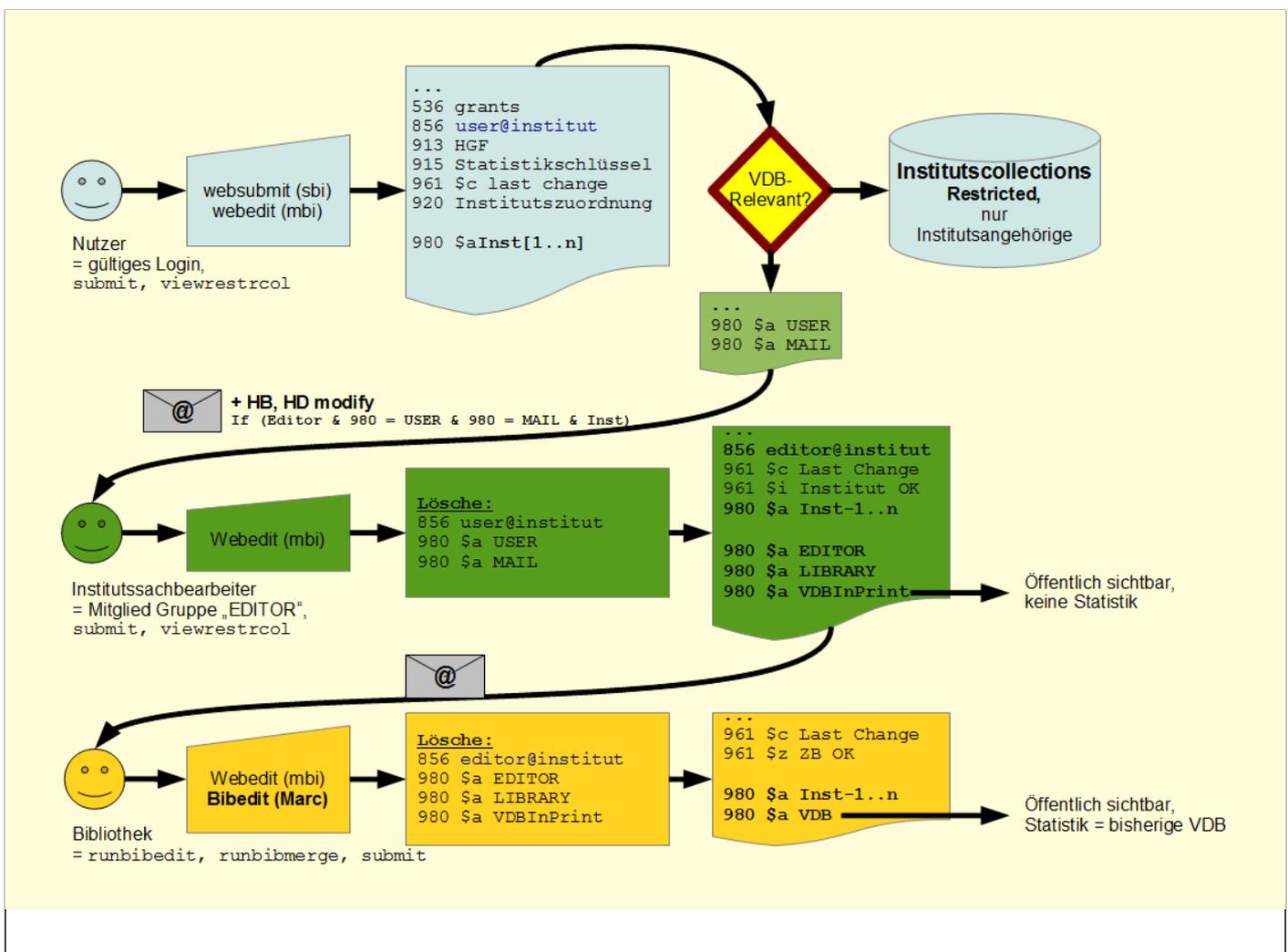


Alexander Wagner, for the Collaboration

4 | 16

Initial ToDo

- Design the system around web based literature management
- Design a document workflow



Initial ToDo

- Design the system around **web based literature management**
- Design document workflow (3 steps with privilege escalation)
- Design easy ingestion workflow (websubmit, imports, author disambiguation)

Finally we wrote some code. . .

Every unwritten line is a good line, still: ≈ 55.000 lines

- Migrate old data (various, proprietary sources)
- Train the inputters and users (secretaries, scientists, librarians)
- Hook up with content management system(s) (visibility!)




Firefox

www.fz-juelich.de/pgi/pgi-1/DE/Service/Publikationen/2013/_node.html

Forschungszentrum Jülich - PGI-1 - Pu... x +

Suchbegriff MITARBEITERSUCHE | DEUTSCH | ENGLISH Institutswegweiser

Peter Grünberg Institut (PGI)
Quanten-Theorie der Materialien (PGI-1 / IAS-1)

AKTUELLES FORSCHUNG LEISTUNGEN KARRIERE ÜBER UNS

PGI-1/IAS-1 Publikationen Publikationen 2013

Referierte Zeitschriftenbeiträge 2013

SERVICE

Kontakt und Anfahrt

Mitarbeiter

Publikationen

Publikationen 2013

Referierte Zeitschriftenbeiträge

Eingeladene Vorträge auf Konferenzen

Andere Vorträge

Poster

Sonstiges

Publikationen 2012

Publikationen 2011

Publikationen 2010

Özdoğan, K.; Şaşıoğlu, E.; Galanakis, I.
Slater-Pauling behavior in LiMgPdSn-type multifunctional quaternary Heusler materials: Half-metallicity, spin-gapless and magnetic semiconductors
Journal of applied physics **113**(19), 193903 - (2013) [10.1063/1.4805063]

Aguilera, I.; Friedrich, C.; Bihlmayer, G.; Blügel, S.
GW study of topological insulators Bi₂Se₃, Bi₂Te₃, and Sb₂Te₃: Beyond the perturbative one-shot approach
Physical review / B **88**(4), 045206 (2013) [10.1103/PhysRevB.88.045206]

Betzinger, M.; Friedrich, C.; Blügel, S.
Precise response functions in all-electron methods: Generalization to nonspherical perturbations and application to NiO
Physical review / B **88**(7), 075130 (2013) [10.1103/PhysRevB.88.075130]

Callens, M.; Caciuc, V.; Kiselev, N.; Atodiresei, N.; Blügel, S.
Magnetic Hardening Induced by Nonmagnetic Organic Molecules
Physical review letters **111**(10), 106805 (2013) [10.1103/PhysRevLett.111.106805]

Cottin, M. C.; Bobisch, C. A.; Schaffert, J.; Jnawali, G.; Bihlmayer, G.; Möller, R.
Interplay between Forward and Backward Scattering of Spin-Orbit Split Surface States of Bi(111)
Nano letters **13**(6), 2717 - 2722 (2013) [10.1021/nl400878r]

Decker, Régis; Brede, J.; Atodiresei, N.; Caciuc, V.; Blügel, S.; Wiesendanger, R.
Atomic-scale magnetism of cobalt-intercalated graphene
Physical review / B **87**(4), 041402 (2013) [10.1103/PhysRevB.87.041402]

Find: publication Highlight all Match case

Initial ToDo

- Design a document workflow (3 steps with privilege escalation)
- Establish easy ingestion workflow (websubmit, imports, author disambiguation)

Finally we wrote some code. . .

Every unwritten line is a good line, still: ≈ 55.000 lines

- Migrate old data (various, proprietary sources)
- Train the inputters and users (secretaries, scientists, librarians)
- Hook up with content management system(s) (visibility!)
- Derive necessary reporting (details are way beyond this intro)
- Get it up and running (First Light: 11/19/2012)



Accomplishments and status



Accomplishments and status

- All partners have running systems (roll out works)
- Almost all partners are online
- Rich websubmit (including **repeatable field** handling)
- Importer routines (doi, pmid, arXiv, inspire, ISBN, own recs,... in **websubmit**)
- **Authorities**
 - **Generate** (≈ 67.000 recs)
 - **Use** (e. g. JSON returns, statistics...)
 - **Share** (MarcXML OAI-PMH)
- **Implement**
 - **Author identification** (ORCID ready!)
 - **Output formats** (JSON, BibTEX, EndNote...)
 - **Reporting** (publication statistics)
 - **Delivery to content management systems**



Tools used

- **Workflow**
 - **Webbaskets** (e. g. revision lists)
 - **Alerts** (e. g. revision lists)
 - **Collections** (e. g. private for institutes)
 - **Webmessage** (e. g. correction requests)
- **Authority records** (almost everywhere)
- **OAI-PMH** (authority exchange)
- **High-level API** (setup: e. g. collections, roles, groups, baskets... ; **no db-dump** sharing)
- **jQuery/jQueryUI** (websubmit)
- **intbitsets** (e. g. statistics)



Lessons learned / Next steps

- CERN is way to fast to keep up with
- Never use Dublin Core again (complex migration, to few data fields...)
- All libraries are the same ☺
- Upgrade to 1.2: get OAI-Server fixed!

However...

In our use case switching of the base system is non-trivial

(Remember: 10+ instances...)

- Open up for new partners
- Clean up our code and give it back



Contributors

- *Martin Köhler*^a
- *Zaven Akopov*^{a,b}
- *Tomasz Pazera*^a
- *Katrin Große*^c
- *Stefan Hesselbach*^d
- *Bernhard Mittermaier*^e
- *Anna Fründ*^e
- *Heike Lexis*^e
- *Cornelia Plott*^e
- *Christoph Holzke*^e
- *Alexander Wagner*^e
- *Jürgen Neuhaus*^f
- *Connie Hesse*^f
- *Björn Pedersen*^f
- *Ulrike Eich*^g
- *Louai Barake*^g
- *Abdoulaye Diallo*^g
- *Roland Rappmann*^g
- *Dominik Schmitz*^g
- *Edmund Wollgarten*^g

^a DESY Library and Documentation; ^b Project Inspire; ^c GSI Library; ^d GSI Core IT;

^e Forschungszentrum Jülich, Zentralbibliothek; ^f MLZ, Garching; ^g RWTH Aachen, Hochschulbibliothek



Further “reading”

- Invenio @ HGF - Technical background
Talk at Invenio Developer Forum
- Collaborative tools for an institutional repository
Talk at Helmholtz OA Workshop
- JuSER – Publications Database
Introductory course at Jülich
- JuSER - Autorenhandling
Talk at HGF-ORCiD Meeting, Berlin (in german)



Thanks!



Alexander Wagner
Zentralbibliothek
Scientific Services /
Scientific Publishing
Tel.: +49-2461-61-1586
a.wagner@fz-juelich.de

This document is available as FZJ-2013-05410



Typeset by pdfL^AT_EX

