

## **INVENIO AT NATIONAL REPOSITORY OF GREY LITERATURE: NEW FEATURES IN 2012**

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### **Abstract**

Both digital repositories maintained by National Technical Library (National Repository of Grey Literature and Institutional Digital Repository) are powered by the open source software Invenio. Its great flexibility allows us its continuous development and adaptation to our needs. This year we added several features that make it easier to work with the repositories - for example, we improved the search, presentation of records, and added export to various citation managers. Following the release of new version of Invenio, we also created a new freely available installation script, that facilitates the installation and basic configuration of the system to those interested in creating their own repository.

### **Keywords**

Digital repository, Invenio, National Repository of Grey Literature

### **General info about the NRGL (National Repository of Grey Literature) digital repository**

The NRGL digital repository<sup>1</sup>, powered by open source software Invenio<sup>2</sup>, is used to gather both digital documents and metadata of grey literature (that is, not published by commercial publishers) produced by various institutions in Czech Republic. The repository currently contains over 117 000 records from 85 partner institutions mainly from the spheres of research, education and government. The number of records have risen by half since January 2012, and number of online visitors of the repository also shows an increasing trend. Because most of the technical issues were successfully solved in previous years and the underlying infrastructure of the repository is well established now, we could focus on user experience

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<sup>1</sup> <http://invenio.nusl.cz>

<sup>2</sup> <http://invenio-software.org/>

this year and made some improvements that make using the repository more smooth and simple. Apart from these modifications, there was one significant technical change - upgrade to higher version of Invenio.

### **Upgrade to Invenio 1.0.1**

In the first quarter of 2012, Invenio 1.0 was released. We decided to upgrade our repositories from the then current version 1.0.0-rc, because the new release fixed many known issues of the previous one. Before the upgrade, we had in mind the difficulties and tediousness of previous upgrade (from 0.99 to 1.0.0-rc, the process was presented at last year's seminar and is summarized in a paper<sup>3</sup>), but in contrast to our expectations, thankfully this time everything went well and the transition was smooth, we only needed to tweak a few functions specific to the NTK repositories.

Because the installation of Invenio itself is not a trivial process, the NRGL department offers an installation script for our partner institutions. This script simplifies the installation process and also provides some basic settings of new installation and customization for czech institutions. Following the release of new version of Invenio, this script was revised too, and is now ready to use with the version 1.0.1.

### **Improvements of user interface**

The improvements of user interface can be roughly divided into three categories, corresponding to the course of action of a user through the repository website: search, display of record and finally export of data in formats suitable for saving in other (e.g. personal) databases and further processing.

It's important to note that many of these features are embedded in Invenio itself, and it was only needed to slightly adjust and enable them.

Let's start with search - in this area, we for example modified the search engine, in order to better treating with accented characters (very common in czech). We also added a few more options into drop-down menus behind search fields - our users can easily search e.g. by conference title or document type, project number and more, without knowing system names of these logical fields.

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<sup>3</sup> [http://invenio.nusl.cz/record/81439/files/idr-178\\_4.pdf](http://invenio.nusl.cz/record/81439/files/idr-178_4.pdf)

Due to Invenio's support for Opensearch<sup>4</sup> technology, it's also possible to search in the NRGL digital repository without visiting our site, just by typing the query into address/search bar of the web browser. Exact use of this feature depends on the used browser - in Chrome, the NRGL digital repository is added among search engines automatically during the first visit of the site, in Firefox it needs to be added to search bar manually.

Last note on search - Invenio offers one very interesting feature, search based RSS feeds. This means that users can find a link to RSS feed at the bottom of every search results page. After adding this feed into their RSS readers, they will be notified, if a new record, which matches their query, appears in the repository later. This is very useful when doing a research on some topic, because new records are added into our repository continually, and especially in some fields of interest, there is quite high probability of new records appearing during a few weeks/months period.

Finding relevant record is of course just first step of research. Next step is to study the primary document. The metadata in the NRGL repository come from wide range of sources, and therefore the documents can be also located at various places. Some of them are directly attached to the record, others are located in source repositories, wherefrom the record was harvested (this is typical for university theses), and there are cases, where only paper copy in the institution library is available. During this year we managed to address all these cases, and by now every record contains either direct link to primary document, or exact information, where the document can be obtained.

We also updated the czech translation of Invenio interface, and notably made a brand new complete translation of user-level help pages into czech. This translations will be sent to CERN as contribution back to Invenio.

The last important enhancement of NRGL repository are the extended metadata export options. We added export to RIS<sup>5</sup>, a file format supported by a variety of reference management software, both commercial and free ones. Invenio also supports unAPI technology, hence it was easy to enable direct export to Zotero<sup>6</sup>, a popular free reference manager, which can be integrated into web browser.

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<sup>4</sup> <http://www.opensearch.org>

<sup>5</sup> [http://en.wikipedia.org/wiki/RIS\\_\(file\\_format\)](http://en.wikipedia.org/wiki/RIS_(file_format))

<sup>6</sup> <http://www.zotero.org/>

*Seminar on Providing Access to Grey Literature 2012: The 5th year of the seminar focused on storage and providing access to the grey literature, 23th October 2012 [online]. Praha: National Technical Library, 2012. Available at WWW: <http://nysl.techlib.cz/Sborniky>. ISSN 1803-6015.*

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## **Future plans**

As for our plans for the nearest future, we intend for example to create and watch more detailed statistic reports of repository usage, and also want to make some of these stats available to our partners, who submit records into the repository. We also plan to tune the submit form for them, to make the submit procedure as easy and simple as possible. Last, but not least, at the beginning of 2013, we want to upgrade our Invenio to recently released version 1.1, which offers many completely new interesting features.