OPEN SOURCE DOCUMENTATION WITH REFERENCE TO VUFIND®

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Open source software is built to solve a particular problem a developer has faced. The developer expects a certain range of competency on the part of users in using the software. Based on this assumption, documentation is prepared.

A 2017 GitHub survey states that “Incomplete or confusing documentation” is the top complaint about open source software.
Janet Davies, in Google OpenDocs states that “as a developer, you can literally be so close to your product that you take its features and purpose for granted”.

But your customers have no idea what you know, or how to apply what you know to address their business challenges. And time is money.
Considering these factors, VuFind® has used the following tools in developing documentation:

- Dokuwiki. The primary documentation platform being used is Dokuwiki. It is simple to use and highly versatile Open Source wiki software that doesn't require a database.
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VuFind®’s Dokuwiki is divided into three parts:
Basic information provides the following information:

- **About VuFind® - The basics**
- **Features - Key features**
- **Requirements - Hardware and software dependencies**
- **List of Current Installations - Institutions currently using VuFind®**
- **Changing Release history**
This book is written by Demian Katz. This book is published in 2021 and consists of 94 pages. It is divided into 6 parts. The main headings of different parts are as follows:

- VuFind® basics
- Configuration and administration
- Styling and theming
- Working with XML and HTML
- Combining and enhancing searches
- Extending and customizing VuFind®’s code
Under this heading, the following information are provided:

**User Manual**

- **Installation** - How to install or upgrade VuFind®
- **Configuration** - How to adjust VuFind®’s settings and features
- **Indexing** - How to load data into VuFind®’s index
- **Administration** - Tips and tools for managing a VuFind® system

**Developer Manual**

- How to modify and extend VuFind®

**Videos**

- In this section, videos regarding installation and configuration are provided.
- The community is divided among the following headings:
Under this heading, contributions made to VuFind® documentation, under the following headings are provided:

- **Code of Conduct** - Guidelines for maintaining VuFind®'s welcoming community environment.
- **Community Call** - Information and minutes related to the regular online discussion for VuFind® community members and developers.
- **Conferences and Presentations** - Information on VuFind® conferences past and future, including presentation slides.
Under this heading the mission is stated as follows:

The mission of the VuFind® Community is to develop and support VuFind®, a free, open-source discovery application.
Conferences and Presentations

- Information on VuFind® conferences past and future, including presentation slides. The papers presented in the VuFind® conferences also provide a good collection of documentation. Some of the documentation is also mentioned here.
By default, VuFind® uses command line for configuration. But automation scripts are being developed for the configuration of the following tasks to improve ease of use for library professionals:

- **Harvest.sh**: Auto incremental harvesting of records from DSpace and Koha ILS
- **DeleteCache.sh**: Auto deleting cache files in the VuFind® directory.
- **DeleteHarvestRecords.sh**: Auto deleting harvested records.
- **DeleteIndexRecords.sh**: Auto deleting indexed records in Solr.
- **Multiple instances of VuFind®**: This script automates the creation of multiple VuFind® instances.
Get Involved...

- **Governance Document** - Details on how the VuFind® project is managed, and how you can contribute.

- **Mailing Lists** - The VuFind® mailing lists are a good place to start conversations about the software; There are two discussion groups: vufind-tech-request and vufind-general discussion group. Usually, an answer is provided within 24 hours. Mostly by Demian Katz and now others have also joined to answer questions.

- **Membership Levels and Benefits** - Information on how to financially support the project (and the benefits of participating).

- **Newsletter** - This monthly newsletter summarizes activity within the VuFind® community and complements the Community Call.

- **Roles and Responsibilities** - A list of specific roles community members can fill to help support the project.

- **Surveys and Statistics** - The VuFind® Community occasionally collects data to inform decision-making; results are summarized on this page.
Under this heading, the following information are provided:

VuFind®'s Logo

VuFind®'s Trademark
Member

This heading is further sub-divided as:

Core Developers - The team behind VuFind®:
- ILS Support List - VuFind® users with experience using particular library systems.
- Language Support List - Volunteers to help with the internationalization of VuFind®.

Current Installations - A list of some of the institutions currently using VuFind®.
JIRA

- JIRA is being used as a tracking tool to find, record, and track bugs in the software and feature requests from the community.
- The record shows that to date 1575 bugs / feature requests were reported on various topics.
Those parts of the VuFind® website outside of the wiki (e.g. the “about” page, the “downloads” page, etc.) are managed through GitHub pages.

GitHub is also used to manage the project’s code and to facilitate code review/discussion through pull requests.
Training

VuFind® does not have data itself but it harvests data from other databases, especially from open source software which uses the MARC and Dublin core standards.

VuFind® is an Open Source platform, it should be customized to fit the institution's requirements such as system interface and metadata integration. To harvest data the OAI-PMH protocol has to be enabled for Metadata Harvesting (OAI-PMH) in DSpace, SubjectsPlus and Koha interfaces. Then it has to be configured to the VuFind® OAI interface which supports MARC and Dublin Core metadata standards to harvest XML records from the Dspace, SubjectsPlus and Koha.

In addition to that, customization has to be done using the API KohaILSDI/KohaRest interface in the instance of Koha and VuFind® respectively. In case of Koha, permission should be given to Koha to accept VuFind®'s requests.

Finally, the XML records are harvested from Koha, SubjectsPlus and DSpace interfaces and indexed with VuFind® either through command line or autoscript.

Here instances of Koha, Dspace and SubjectsPlus are given. In your case, it may be different.
Training...

- Since release 2.1, VuFind® can be used to create a website index separate from the main search index. Results from this index can then be used on their own or merged with catalog results using the combined search tools. This has been tested with WordPress up to version 5.9.

- All the above procedures and configurations can be handled only by professionals having advanced computer know-how. To fill this gap, HealthNet Nepal in collaboration with VuFind® is providing training courses since 2020 and it will be continued in the coming days.
Under this training course, the following open source software and packages are taught:


The duration of the training course is around 4 months including the internship programme. The handouts being prepared for the training courses are also good sources of documentation.

The handouts can be accessed from the website: training.vufind.org.
The VuFind wiki page cannot incorporate pdf documents with screenshot. But many users including system administration like to have documentation in pdf format with screenshot. This facility is made available in the hand-out of training course as given below:
LiveDVD

A pre-configured software is being developed by using the open source software: Koha, DSpace, SubjectsPlus, WordPress and VuFind®. This is available for download from the url: https://sourceforge.net/projects/livedvdvufindkohadspace/
Future Plan

- Starting with release 6.1, VuFind® supports “selective dissemination of information” (SDI) – users can subscribe to searches and receive notifications in the form of regular email alerts when new records appear in those result sets.

- VuFind® has the capability to harvest open resources that might be useful to library. But harvesting large open source data such as Directory of Open Access Journals (DOAJ), and regional databases developed by OJS are not possible in practice for a small library and for developing countries. So VuFind® is going to harvest data from DOAJ and NepJol and providing the services through SDI services globally to interested persons free of cost.
As a pilot test we are harvesting open sources data from DOAJ and OJS with reference to NepJol.

A prototype design is being made with DOAJ and as a test it has harvested 105,596 (One hundred thousand, five thousand five hundred ninety six articles).
Search Results

Showing 1 - 20 results of 105,595 for search "", query time: 0.07s

1. Hafızlık Eğitiminin Öğrencilerin Sosyal ve Özgüven Gelişimlerine Etkisi -Örgün Eğitim Birlikte Hafızlık Yapan İHO Öğrencileri Üzerine Bir Araştırma
   by Adem Güneş
   Published 2020-06-01
   Get full text

2. A Task-Specific Ionic Liquid Mediated Solvent-Free Protocol for Direct Access to Dimethyl Acetal Protected Benzimidazole 2-Carboxaldehydes
   by Barnali Deb, Ankita Chakraborty, Jewel Hossain, Swapan Majumdar
   Published 2020-10-01
   Get full text

3. Preparation of ARGET ATRP Adsorbents with Differnt...
Configuration of DOAJ

- oai.ini

[DOAJart]
url = https://doaj.org/oai.article
metadataPrefix = oai_doaj
idSearch[] = "/oai:doaj.org\article:\"
idReplace[] = "doaj-art-"
injectId = "identifier"
injectDate = "datestamp"
harvestedIdLog=harvest.loig
Harvesting command

- php harvest_oai.php --until=2020-12-01T00:00:00Z DOAJart
- Command used for importing data:
- $VUFIND_HOME/harvest/batch-import-xsl.sh DOAJart doaj.properties
Open Journal Systems (OJS) is an open source software application for managing and publishing scholarly journals. In developing countries, it was initiated by INASP, UK. Currently, journal online project through the software OJS is running under 8 developing countries supported by INASP. One of them is NEPJOL for Nepal.
NepJOL

- NepJOL (Nepal Journals Online) is an indigenous database of peer-reviewed high-quality scholarly Journals of Nepalese origin being maintained by TU Central library since 2009.

- The database is being web-hosted by Ubiquity Press, UK as assigned by TUCL on yearly basis. NepJOL provides service to the participating journals by hosting their content online with free access to all of them.

- The objective of NepJOL is to give worldwide visibility and accessibility to participating Nepalese scholarly journals.

- Till April 14th 2020 (Baishakh 1, 2077 BS) the number of participating journals in NepJOL has reached 176. There are 1529 Tables of Contents listing 19,983 articles. 19,232 of the articles are available in full text (PDF). The URL is:  [https://www.nepjol.info/](https://www.nepjol.info/)
Similarly, the VuFind® community is also going to provide training courses free of cost to the members of VuFind®.

There is also a plan to measure the users’ attitudes toward documentation.

Users’ survey of training courses was done by VuFind® in the year 2021. Regular surveys of different groups of services being provided by VuFind® should be done to measure the ultimate success of the VuFind® software.
Conclusion

- Documentation of open source software plays a vital role in the success of open source software.
- A single tool of documentation is not sufficient for the success of open source software.
- The ultimate success can be measured through the user survey towards the various services provided by VuFind®.
- Based on this survey, weaknesses as well as strengths of the VuFind® software can be measured.
References

Thank You!