### **DHIS 2 Documentation Guide**

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Added more information on getting started with bzr and DocBook

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# **DHIS 2 Documentation System Overview**

DHIS 2 is a web-based information management system under very active development. Currently, there are a large number of disconnected pockets of documentation across in various formats (e.g. MediaWiki, Word documents, Confluence). There is a need to consolidate the documentation process and bring it more in-line with the distributed nature of the development of the application itself. It has been suggested therefore to move the current documentation to the DocBook platform. This article will not discuss the relative merits of the DocBook platform, but rather will serve as a brief guide to its use by DHIS 2 implementers, users and developers. Readers are encouraged to make their own decision about whether to use DocBook or not for documentation purposes.

#### Introduction

One of the main advantages of DocBook is that there is complete separation between the content and presentation. DocBook is a pure XML format, and is well documented. It is believed that only a very small subset of its features will be required in order to achieve much higher quality documentation for DHIS. There are some 400 separate mark-up elements that cater to almost any level of technical documentation needs, but in reality, only a few dozen of these element will probably need to be employed to achieve high-quality documentation for DHIS 2, both for printed as well as online formats such as HTML or integrated help systems with the application itself. Therefore, there are wide range of possibilities in terms of which editor can be used for the creation of DocBook files. A fairly complete list of possibilities is located here [http://wiki.docbook.org/topic/DocBookAuthoringTools]. XMLmind XML Editor Personal Edition [http://www.xmlmind.com/xmleditor/persoedition.html?] is a good balance between functionality and simplicity.

One of the key concepts to keep in mind when authoring documentation in DocBook, or other presentation neutral formats, is that the **content** of the document should be considered in the first instance. The **presentation** of the document will take place in a separate step, where it will be rendered into different formats, such as HTML and PDF. It is therefore important that the document is will organized, and structured, with appropriate DocBook tags and structural elements being considered.

It is good practice to break your document in to various sections using the "sect", or section element. Section elements can also be nested within each other, such as "Section 1" and "Section 2". This concept is essentially the same as Microsoft Word or other word processing programs. DocBook will automatically take care of numbering the sections for you when the document is produced. Two other important elements are the "itemizedlist" and "numberedlist". These are quite similar, but an itemized list corresponds to a bulleted list, which a numbered list will be rendered with each element being numbered sequentially. Other key elements are "screenshot" and "table" which should be self-explanatory.

### **Getting started with Launchpad**

Currently, the documentation system is part of the source code housed at Launchpad [https://launchpad.net/]. In order to start adding or editing the documentation, you should first perform a checkout of the source code. If you do not already have a Launchpad login id, you will need to get one. This can be done here [https://launchpad.net/+login].

Once you register with Launchpad, you will need to request access to the dhis2-documenters group. Login to Launchpad, and then request access here [https://code.launchpad.net/~dhis2-documenters/dhis2/dhis2-docbook-docs]. Your request will need to be approved by the group administrators. Once you have been granted access to the group, you can commit changes to the documentation branch.

#### **Getting the document source**

In order to edit the documentation, you will need to download the source pages of the documentation to your computer. Launchpad uses a version control system known as bzr. There are different methods for getting bzr working on your system, depending on which operating system you are using. A good step-by-step guide for Microsoft operating systems can be viewed here ["http://wiki.showmedo.com/index.php/Using\_Launchpad\_and\_Bazaar#Steps\_to\_download\_a\_project\_on\_Launchpad\_that\_uses\_Bazaar\_with\_only\_one\_branch" If you are using Linux, you will need to install bzr on your system through your package manager, or from source code.

Once you have installed bzr on your system, you will need to download the document source. Just follow this procedure:

- 1. Make sure you have Bazaar installed.
- 2. Start Bazzar by right-clicking a folder if you are using Windows and selecting **Bzr Here**. If you use Linux, you can just create a folder to hold the document sources. You can place the document source in any folder you like.
- To download the latest revision of the DHIS2 documents project type: bzr lp:~dhis2-documenters/ dhis2/dhis2-docbook-docs
- 4. The download process should start and all the documentation source files will be downloaded to the folder that you specified.

### **Editing the documentation**

Once you have downloaded the source, you should have a series of folders inside of the dhis2-docbook-docs directory. All documents should be placed in the dhis2-docbook-docs/src/docbkx folder. Place any image files that may be linked to your document in the /dhis2-docbook-docs/src/docbkx/resources/images folder and link these inside your DocBook document using a relative file link. When the documentation is built, in a separate step, the images will be automatically copied over to the correct directory during the build process.

### **Building the documentation**

In order to transform the documentation source files to different format, such as HTML or PDF, you will need to install the Apache Maven program. You can get a copy here [http://maven.apache.org/download.html] or by installing it through your package manager if you are using Linux. A sample build file has been included as part of the documentation source. Just execute the command **build.bat** on Windows or **build.sh** on Linux from the /dhis2-docbook-docs directory. Maven will start to download the necessary components to transform the documents into HMTL and PDF. Once the process has completed (be patient the first time, as there are a number of components that must be downloaded), all of the target document types will be generated in the /dhis2-docbook-docs/target/docbkx directory. HTML documents will be in the HTML directory, and PDF documents will be in the PDF directory.

## Committing your changes back to Launchpad

Once you have finished editing your document, you will need to commit your changes back to Launchpad. Open up a command prompt on Windows or a shell on Linux, and navigate to the folder where you have placed your documentation. If you have added any new files to your local branch, you will need to add them to the source tree with the **bzr add** command, followed by the file name(s) that you have added to the src directory. Once you have added all of your new files, you will need to commit them to your local branch with the following command:

bzr commit -m "Adding missing files from master branch"

Just add an informative message of what you have done. Once you have committed changes to your local branch, you can push them to the master branch with the following command:

bzr push ~dhis2-documenters/dhis2/dhis2-docbook-docs