The Firebird Documentation Project

Writing Firebird Docs with DocBook XML

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Session Overview

**Part 1**
- Who, Where, What
- What we have so far
- What is needed

**Part 2**
- How to write docs
  A hands-on introduction to DocBook XML
Who, Where and What

- **Paul Vinkenoog:**
  Project Coordinator, DocBook wizard, proof reader, copyright watchdog, „heart and soul“ of the Documentation Project

- **Helen Borrie:**
  Compilation and maintenance of Release Notes, mailing list admin, thousands of bits and pieces…

- **Norman Dunbar:**
  Reference manuals for command line tools

- **Various others:**
  Articles, papers, translations into various languages
Who, Where and What

• Mailing list:
  firebird-docs@lists.sourceforge.net

• CVS access (doc sources):
  firebird.cvs.sourceforge.net (manual module)

• Online access (finished docs):
Who, Where and What

• The vision:
  A complete, comprehensible, up-to-date set of documentation for Firebird

• Complete:
  You should find everything in the docs

• Comprehensible:
  It should be easy to understand

• Up-to-date:
  All Fb versions should be covered (2.0 + up)
What we have so far

• Quick start guides
• User manuals
• Release notes
• Various papers
• Language Reference Update for 1.5
• [InterBase 6.0 Manuals]
  Outdated, copyright issues
What is needed?

- **MOST WANTED:** *SQL Language Reference*
  - A *(the?)* Complete Reference of Firebird SQL+PSQL from V1.0 (at least V2.0) to V2.5 and beyond...

- Translations
  - Make the docs available in Italian, Portuguese, French, German, Russian, *(…) language*

- Consolidation
  - Bring all the bits and pieces together
Part 2: How to write docs

• What is DocBook XML?
• Why DocBook?
• How does it work?
• Setting up a build environment
• Editing tools
• Practical example: „My first Firebird Doc“
What is DocBook XML?

DocBook „home“: http://www.docbook.org

- DocBook is an **XML Schema**
  designed for writing books and papers about computer hard- and software

- **Key feature:**
  Strict separation of **content** (text) and **representation** (formatting, fonts…)

FBCon 08 - Bergamo
Why DocBook?

• **Modularity**
  – Books, Articles, Chapters in *separate source files*
  – Can be INCLUDED into bigger docs

• Various **output formats**
  – PDF, HTML, MAN pages from the *same sources*

• **plain text format**
  – Editing with any text editor
  – CVS: same version control as Firebird

• **Focus on content**
  – Author just writes content
  – doesn’t care about formatting output, fonts etc.
How does it work?

Basically, DocBook works just like a compiler:

- Source files (content)
  - XML source file #1
  - XML source file #2
  - XML source file #[n]
  - (more source files…)
- XSL Style sheets (paper size, fonts, formatting instructions)
- Command Line („Compiler directives“)
- Build process
- Output
  - PDF Document
  - HTML pages
  - MAN pages

„This is where the magic happens“ 😊
Setting up #1: Get Java

- Download + install Java (JRE)
- Set the `JAVA_HOME` environment variable
Setting up #2: CVS Checkout

- Check out Manual module from CVS
  - Set the CVS root
  - Checkout „manual“
Manual tree after cvs checkout

- **Config**
  - config settings for „fo“ (formatting objects)

- **Lib**
  - Java libs for the build process

- **Src**
  - XML source files (content) and `build.bat`

- **Tools**
  - DocBook dtd and stylesheets (formatting, fonts, …)
Setting up #3: Get the tools

• Go to http://www.firebirdsql.org/doctools/

• Download and unzip everything into the tools dir

Index of /doctools/

2008-07-04 10:01:37         (dir)

2007-04-15 10:05:08 00-README.TXT 184 bytes
2007-04-15 09:15:41 docbook.dtd.zip 96 KB
2007-04-15 09:18:40 docbook-stylesheets.zip 3 MB
Setting up #4: Get the libs

- Go to http://www.firebirdsql.org/doclibs/
- Download and unzip ALLJARS.ZIP into the lib dir
Setting up: Test-run the build

- Open a command line in the `src/build` dir, run "build pdf"
Setting up: Verify the build

- After some time, you should get:

```
pdf:
BUILD SUCCESSFUL
Total time: 1 minute 6 seconds
D:\docbook\manual\src\build>
```

- In the \dist\pdf dir you will find:

![File List](image)
Docwriting workflow

- Write doc(s) with XMLMind or text editor
- Build doc set as HTML and/or PDF
- Proof-read, correct errors, build again
  Tip: don’t proof-read yourself, contact the mailing list and find someone to help you!
- Add new files to CVS
- Commit new/modified files to CVS
- Keep your docs up-to-date
Editing Tools for DocBook

- Simple: plain text editors
  - VI, Notepad (argh…)
  - „decent“ **text editor** with syntax highlighting

- Advanced XML-aware editors:
  - Dedicated XML Editors
    - e.g. **XMLMind** (Free edition) has built-in DocBook support
Editing in XMLMind

- Checks XML structure, knows DocBook, „almost WYSIWYG“
Building Doc sets

Use `build.bat` in `\manual\src\build`:

```
build <target> [<options>]
```

- `<target>` = `pdf` | `html` | `monohtml`

  - `build html` builds multi-file html docs
  - `build monohtml` builds a single, huge html file
Building non-english docs

Use "-Dsfx=<languagecode>" option:
(sfx = suffix for the src directory and all xml files)

build pdf -Dsfx=de builds the German doc set

Language codes: it, es, de, ru, pt_br, fr, ja, nl
Building a part (set) of the Docs

Use the `-Dbasename` option:

```
build pdf -Dbasename=rlsnotes
```

Builds `rlsnotes.pdf` containing *only* the release notes

```
basename = firebirddocs (default) | rlsnotes | papers | refdocs
```
Before you start writing:

• Read the DocWriting How-To
  Really, really read it! It’s worth it!!

• Pick a topic
  You think you know everything about it?
  Write documentation, and find out
  how little you knew! ;-)

• Announce it in the mailing list
  Get Together & Don’t duplicate work!
DocBook structure elements

- `<set>`
  Top-level: a set of `<book>`s make a doc set

- `<book>`
  A `<book>` contains articles and/or chapters

- `<article>` or `<chapter>`
  An article or chapter contains sections

- `<section>`
  A section contains paragraphs

- `<para>`
  Bottom-level: a paragraph holds a block of text together
DocBook formatting elements

Some examples:
<programlisting> for SQL statements, command line, ISQL etc.
<example> for – guess what 😊
<tip> for tips (in blue boxes)
<emphasis> to highlight words or terms

See Paul Vinkenoog‘s „Firebird Docwriting Guide“ for more !
DocBook IDs

- Any structure element can have an ID (an IDentifier is a text label in DocBook!)
- IDs can be used for hyperlinks
- IDs can be used to include XML files into others
- IDs MUST BE UNIQUE throughout all files in one SET (!)
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE set PUBLIC "-//OASIS//DTD DocBook XML V4.5//EN" "/../tools/docbook-dtd/docbookx.dtd"
<!ENTITY fbutilities-intro SYSTEM "firebirddocs/fbutil_intro.xml">
<!ENTITY fbutilities-gsec SYSTEM "firebirddocs/fbutil1_gsec.xml">

<set id="firebird-docset">
  <title>Firebird Documentation Set</title>
  <!-- top-level element is the "set" -->
  <!-- defines the title of the set -->
  <book id="firebird-database-documentation">
    <bookinfo>
      <title>Firebird Database documentation</title>
      <!-- starts a "book" inside the "set" -->
    </bookinfo>
    <article id="generatorguide">
      <!-- defines the title of this book -->
      <!- content of the article goes here... -->
      <!-- starts an article inside the book -->
    </article>
    <!-- closes the article -->
    <!-- ...more articles of the book here... -->
  </book>
  <!-- closes the first book -->
  <!-- starts the second book in the set -->
  <book id="fbutils">
    <bookinfo>
      <title>Firebird Commandline utilities</title>
      <!-- this includes the intro article -->
    </bookinfo>
    @fbutilities-intro;
    @fbutilities-gsec;
  </book>
  <!-- closes the second book -->
  <!-- closes the entire set -->
</set>
DocBook Article example

• Each `<article>` should be in a separate file
  *(not necessary, but keeps things more modular!)*

```
<article id="generatorguide">
  <articleinfo>
    <title>Firebird Generator Guide</title>
  </articleinfo>
  <section id="generatorguide-intro">
    <title>Introduction</title>
    <section id="generatorguide-intro-about">
      <title>What is this article about?</title>
      <para>This article explains what Firebird generators are,...</para>
    </section>
    <section id="generatorguide-intro-forwhom">
      <title>Who should read it?</title>
      <para>Read this article if you...</para>
    </section>
  </section>
  <!-- more sections here... -->
  <appendix id="generatorguide-dochist">
    <title>Document history</title>
    <!-- content of the appendix goes here... -->
  </appendix>
</article>
```

<!-- starts an article inside the book -->
<!-- first section in the article -->
<!-- sub-section inside a section -->
<!-- text in a "para" is kept together -->
<!-- each ID must be UNIQUE! -->
<!-- closes the innermost section -->
<!-- closes the outer section -->
<!-- more sections here... -->
<!-- starts an appendix to the book -->
<!-- closes the appendix -->
<!-- closes the article -->
Now let’s write some docs!
Your Doc team needs you!

join us at

firebird-docs@lists.sourceforge.net
„Ich habe fertig!“
(Giovanni Trapattoni)

Thank You for your attention!

Any questions?