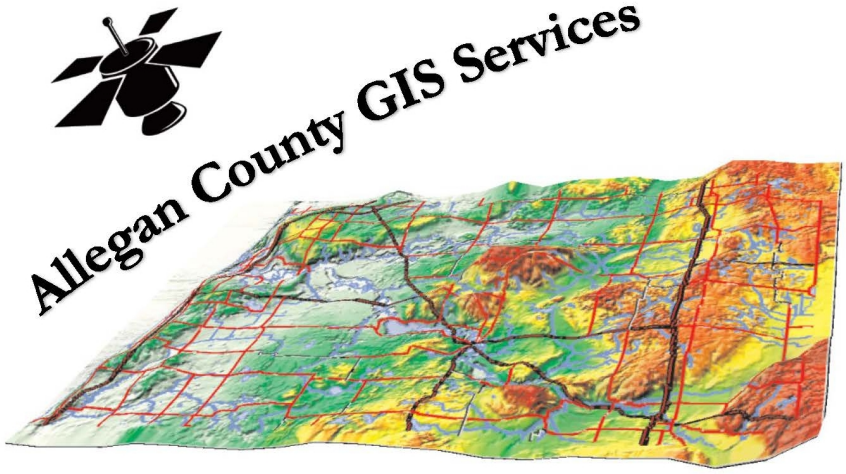

How The Jalapeño Works

Allegan County GIS
www.allegancounty.org/gis

January 28, 2019

Contents

Problem and Analysis

Background

GIS Services has complicated and evolving workflows and uses everchanging technologies

Statement of Problem

GIS documentation has traditionally been done in different formats and stored in many different files and folders in the county network. This has resulted in problems with:

- version control
- finding the documentation
- disseminating the documentation

Analysis

The Jalapeño folder along with some open-source software provides a robust documentaion tool for GIS documentation.

Colors

Blues

HeaderBlueA
HeaderBlueB
HeaderBlueC
HeaderBlueD
HeaderBlueE

Golds

HeaderGoldA
HeaderGoldB
HeaderGoldC
HeaderGoldD
HeaderGoldE

Oranges

HeaderOrangeA
HeaderOrangeB
HeaderOrangeC
HeaderOrangeD
HeaderOrangeE

Greens

HeaderGreenA
HeaderGreenB
HeaderGreenC
HeaderGreenD

HeaderGreenE

Others

HyperlinkBlue1
graphicOrange

General Notes:

- jalapeno folder is a git package.
  https://github.com/nbesteman/jalapeno
- Project is coded with relative paths and jalapeno can be located anywhere.

Project File Structure:

...\jalapeno\..

folder	description
documentation	resources used in Jalapeño
processing	.tex douments and build folders
source	common image files

...\jalapeno\documentation\..

folder or file	description
moduleTemplates	.tex templates
packageDocs	LaTeX documentation
references	reference and appendix resources
unsorted	catch all for unsorted documentation
BookStructureMM.mm	A mindmap of jalapeno

...\jalapeno\processing\..

folder or file	description
...Part	folders of book *part*s
build	LaTeXfolder for .pdf output and temp files
build\referenceEntries.bib	entries that appear in references
commonTitle.tex	code for all title pages
fullCompile.sh	shell script to compile GISDocumentation.tex
GISDocumentation.tex	master document code
glossaryEntries.tex	entries that appear in glossary
indexEntries.tex	entries that appear in the index
preamble.tex	preamble code for all documents

*Note about referenceEntries.bib

Any reference entries built here can be cited in any .tex document in the project.

Using The Glossary

Glossary Requirements

Glossary commands require a Perl interpreter. Activeperl is a free Perl interpreter and can be downloaded from:
https://www.activestate.com/activeperl/downloads (A typical installation adds Perl to your path). Compiling the glossary requires running the makeglossaries command either in a LaTeX IDE or in command line as described here. PDFLatex must be run first to create a .aux file that is used by makeglossaries to create an .gls file. After the .gls file is created, PDFLatex must be run again to insert the glossary at the \printglossaries location.

Creating a new glossary entry

To **create a new glossary entry:** Add an entry to glossaryEntries.tex. Save it there and then use the makeglossaries command to recompile the .gls file.

Rebuilding the glossary

To Recompile the .gls. In the (main document)build folder:

- Launch command prompt
- enter command: **makeglossaries GISDocumentation***

*Note:

This command reads the .aux file and creates the .gls file. The .aux file is created by compiling with PDFLatex. If there is no .aux file the command will fail.

Using glossary terms in a subdocument:

In the subdocument you must add code to input the glossaryEntries file. For example:
After the line:

```
\input{../../../preamble}
```

Add the line:

```
\input{../../../glossaryEntries}
```

To use a glossary term in the subdocument:

In place of the term, use code referencing the key (in the glossaryEntries file):

- \gls{key}

To add the glossary to the subdocument:

- Add the line \makeglossaries to the preamble of the subdocument.
- Add the line \printglossaries to the subdocument.
- Run makeglossaries in command line on the subdocument similar to how is described above.

Using The Bibliography(References)

Bibliography requirements

Compiling the bibliography requires running bibtex either in a LaTeX IDE or in command line as described here. PDFLatex must be run first to create a .aux file that is used by bibtex to create a .bbl file. After the .bbl file is created, PDFLatex must be run again to insert the bibliography at the \bibliography location.

For example, the command:...\bibliography{referenceEntries}
...places the bibliography called referenceEntries.bib which must be in the same folder as the project .aux file.

Creating a new bibliography entry

To **create a new bibliography entry:** Add an entry to referenceEntries.bib. Save it there and then use bibtex to recompile the .bbl file.

Rebuilding the bibliography

To Recompile the .bbl. In the (main document)build folder:

- Launch command prompt
- enter command: **bibtex GISDocumentation**

*Note:

This command reads the .aux file and creates the .bbl file. The .aux file is created by compiling with PDFLatex. If there is no .aux file the command will fail.

To cite a bibliography source in a subdocument:

In the place that you want the citation:

- `~\cite[pg.#]{key}`

Adding the bibliography to the subdocument

- Similar to adding to the master document but not documented here.

Using The Index

Index requirements:

Compiling the index requires running the makeindex command either in a LaTeX IDE or in command line as described here. PDFLatex must be run first to create a .aux file that is used by makeindex to create an .idx file. After the .idx file is created, PDFLatex must be run again to insert the index at the \printindex location.

Creating a new index entry

To **create a new index entry:** Add an entry to indexEntries.tex. Save it there and then use the makeindex command to recompile the .idx file.

Rebuilding the index

To Recompile the .idx In the (main document)build folder:

- Launch command prompt
- enter command: **makeindex GISDocumentation***

*Note:

This command reads the .aux file and creates the .idx file. The .aux file is created by compiling with PDFLatex. If there is no .aux file the command will fail. Run PDFLatex first

Access the index from a subdocument

In the subdocument you must add code to input the indexEntries file. For example: After the line:

```
\input{../../../preamble}
```

Add the line:

```
\input{../../../indexEntries}
```

To use a index term in the subdocument:

In place of the term, use code referencing the key (in the indexEntries file):

- \index {key}

To add the index to the subdocument:

- Add the line \makeindex to the preamble of the subdocument.
- Add the line \printindex to the subdocument.
- Run makeindex in command line on the subdocument similar to how is described above.

Using the Appendices