

<b>SOP Title:</b> Example	<b>SOP Number:</b> 2014.1
<b>Original Author/Title/Signature:</b> Adam Tenderholt	<b>Origin Date:</b> 16-Sep-14
<b>Management Approval/Title/Signature:</b>	<b>Date:</b>
<b>Quality Assurance/Signature:</b>	<b>Effective Date:</b>

## A. PURPOSE

The purposes of this test method are:

- A.1. Introduce the Markdown syntax.
- A.2. Demonstrate conversion to PDF.
- A.3. Show how Github can be used to effectively collaborate.

## B. BACKGROUND

Markdown formatting was created as a way to specify document structure using a simple syntax for document features. This is in contrast to mark-up formats such as HTML or LaTeX which require a more extensive knowledge to format documents properly and are not as human readable.

## C. SYNTAX

### C.1. Sections

Section headers are created by either placing # characters on the same line or = characters under the heading:

```
SYNTAX
=====
```

or

# SYNTAX

Subsections can be created using multiple # characters or - characters:

Sections

-----

or

## Sections

## C.2. Lists

Another feature that is very useful are nested (enumerated) lists. For example:

C.1. Item 1

C.1.1. subitem 1.1

C.1.2. subitem 1.2

C.2. Item 2

C.2.1. subitem 2.1

The above list was created with the following syntax. Note that the list is autonumbered based on section number, but this is *somewhat* configurable.

#. Item 1

#. subitem 1.1

#. subitem 1.2

#. Item 2

#. subitem 2.1

## C.3. Highlighting

Items can be *italicized* or **bolded** using a very simple syntax:

*\*italicized\**

**\*\*bolded\*\***

## D. CONVERSION

The open source program “pandoc” can convert from several text formatting styles, including Markdown and  $\text{\LaTeX}$ , and output several other formats such as HTML, PDF, and DOCX.

It was most straight-forward to use pandoc to convert to PDF, which goes through a  $\text{\LaTeX}$  intermediate file. *I did not explore any other formats, except briefly for DOCX which seemed harder to customize.*

Conversion from Markdown to PDF requires “pdflatex” to be properly installed.  $\text{\LaTeX}$  to PDF has the advantage that customizing a template file is often all that is needed and can incorporate  $\text{\LaTeX}$  math or other commands with little effort. For example:

$$\int x^2 dx = \frac{1}{3}x^3 + C$$

or

$$\int x^2 dx = \frac{1}{3}x^3 + C \tag{1}$$

## E. GITHUB COLLABORATION

This next part is harder to show in a document, so a example Github repo has been created.