Quality Control of Requirement Documentation Using SASQUATCH (Simplified And Streamlined QUality Assurance Through Coding Help) Perl Script

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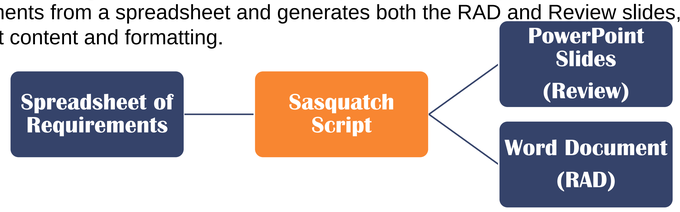
SASQUATCH

EPL Review documents include both Requirements Allocation Documents (RADs) and Requirements slides with identical content. Additionally, a spreadsheet is provided for review showing requirements tracing to Level 1 and Level 2 requirements. SASQUATCH is a Perl script that reads requirements from a spreadsheet and generates both the RAD and Review slides, thus ensuring consistent content and formatting.



Risk-QUATCH

EPL Review documents include a Review Item Disposition (RID) spreadsheet that tracks all risks and review items. For each review, the review items in the RID are presented. Building on the capability of SASQUATCH, Risk-QUATCH converts the RID spreadsheet into properly formatted presentation slides for the review.

Summary

SASQUATCH (Simplified And Streamlined QUality Assurance Through Coding Help) is a Perl script developed by NOAA/STAR Algorithm Integration Team (AIT) to facilitate the algorithm review process. The script converts an existing spreadsheet of requirements information into formatted documentation and slide presentations. Designed to ensure quality control and content consistency between multiple document types, changes are made in one place (the spreadsheet). We discuss the current capabilities of SASQUATCH as well as future enhancements, including the ability to read in existing requirements documents or presentation outlines and analyze differences between documents. Using alternative tools, changes can be tracked, and modifications documented to ensure quality assurance.

What is SASQUATCH?

•SASQUATCH is a Perl script that converts spreadsheets into documents .

•SASQUATCH was originally designed to ensure quality control of requirements documents.

•An additional sub-routine called Risk-SQUATCH was added for quality control of risk tracking documents.

Purpose

•Consolidate requirements content into a single document.

•Ensure consistency between Requirements Allocation Document (RAD) and review slides generated to facilitate requirements review.

•Facilitate standard document formatting in the RAD.

•Generate Review requirements slides according to a uniform template.

Additional Features

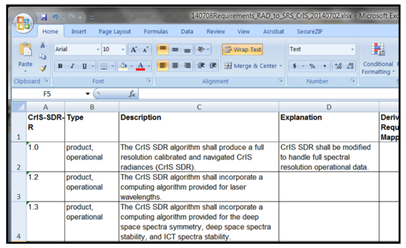
•Maintain risk tracking in the Review Items Disposition document.

•Ensure consistency between the RID and Review Slides.

•Generate Risk-related requirement slides according to a uniform template.

Procedure For Inputs

1. Create CVS (comma delimited) file containing complete requirements list according to specified format. This file can be an ASCII comma delimited file, or a simple Excel file.(Shown Right)



	CrIS-SDR-R	Type	Description	Explanation	Deriv Requ Mapp
1	1.0	product, operational	The CrIS SDR algorithm shall produce a full resolution calibrated and navigated CrIS radiances (CrIS SDR).	CrIS SDR shall be modified to handle full spectral resolution operational data.	
2	1.2	product, operational	The CrIS SDR algorithm shall incorporate a computing algorithm provided for laser wavelengths.		
3	1.3	product, operational	The CrIS SDR algorithm shall incorporate a computing algorithm provided for the deep space spectra symmetry, deep space spectra stability, and ICT spectra stability.		

2. Copy CSV file to working Linux directory. This directory should also include the Perl script.

3. Change CSV file name to `csv_input.csv`

4. Execute program `convert_excel_to_html_and_rtf.pl`

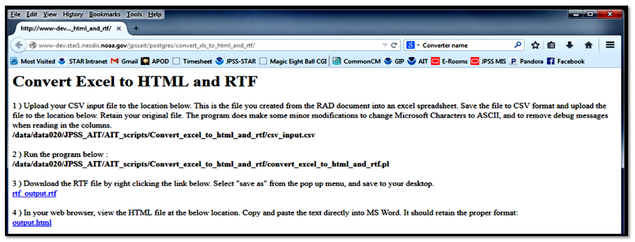
Procedure for Outputs

For RAD:
In your web browser, view the HTML output file.
Copy and paste the text directly into RAD shell in MS Word.

For Review Presentation:
Download rtf output into your home directory
Open Powerpoint
Select New Slide from Outline
Select rtf_output.rtf

Procedure for Importing

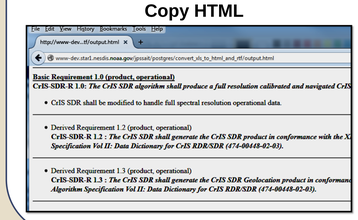
NOAA AIT users have the option of downloading the outputs via web interface.



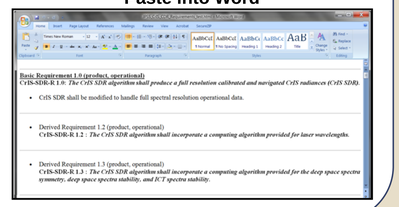
Generating Word Document

•Open output.html file
•Copy/paste into the Word document in the appropriate section

Copy HTML



Paste into Word



Generating PowerPoint Presentation

RTF Example That Is Imported To Power Point

•In your Power Point presentation, select “New Slides” icon
•Select “Slides from Outline”
•Choose rtf_output.rtf
•Imported slides will conform to master slide template

Power Point Menus

Power Point Slide Results