SENTINEL SAS MACRO TOOLKIT:

SAS Log Checker Tool

(%MS_LOGCHECK)

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Prepared by the Sentinel Operations Center

For use with any distributed Sentinel SAS package

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SAS Log Checker Tool

1. Introduction

This log checker tool can be used to consistently and efficiently scan resultant SAS logs for any concerning lines that may indicate an issue or problem with program execution.

2. Program Objectives

The purpose of the log checker tool is to scan SAS logs for any errors, warnings and concerning notes of interest (see table below), and produce summary and detailed reports of what is found. The tool can run in a variety of computing environments (Windows, UNIX, Linux) and SAS versions (from 9.2 and above).

Default Search Terms	
0 observations	MERGE statement
Character values have disabled	Missing
converted	No observations
Division	repeats of BY values
ERROR:	stopped
ERROR [0-9]	uninitialized
Groups are not	WARNING:
Invalid	WARNING [0-9]
Mathematical	W.D format

This tool can be customized with the following features:

- The tool allows the user the option to scan a specific log file, multiple log files, or all logs within a user-specified directory.

- In addition to the standard keywords for which the tool will scan, the user may also supply a list of additional keywords. Please note that additional keywords are case-sensitive.

- The tool includes parameters to output the report to a location and format specified by the user.

- The tool also includes a parameter that allows the tool to scan and capture up to ten (10) lines of text above and below the log line of interest.

3. Parameter Specifications

Program Macro Variable Name	Short Description	Long Description
INPUTFILE	LOG file to be scanned	**Details :** The name of the specific log file to be scanned. **Input type:** Optional. If blank, will process all logs in the INPUTDIR folder. If specifying multiple logs, separate each log with a '^'. Remember to include the .log extension after each filename **Format**: text **Example**: masterlog.log **Example**: masterlog.log^masterlog2.log^masterlog3.log
INPUTDIR	Directory containing one or more LOG files	**Details :** The directory (full path) containing one or more LOGs to be scanned **Input type:** Required **Format**: text **Example**: M:\directory\subdirectory\input\
OUTPUTDIR	Directory location of output report	**Details:** The directory (full path) to which the output report should be written **Input type:** Required **Format**: text **Example**: M:\directory\subdirectory\output\
REPORTTYPE	Format of report to be output	**Details:** The format of the resultant output report **Input type:** Optional. Default=pdf. Allowable values: pdf, html, rtf. **Format**: text **Example**: html
CONTEXTLINES	Number of lines above and below log line of interest	**Details:** The number of lines above and below the line of interest that will be reported along with the line of interest **Input type:** Optional. Default=0. Maximum=10. (any number > 10 will be capped at 10) **Format**: numeric **Example**: 5

Program Macro Variable Name	Short Description	Long Description

KEYWORDS	Additional keywords to scan for	**Details:** Additional, user-specified keywords for which the tool will scan and report
		
		Input type: Optional.
		
		Format: text; case sensitive; multiple keywords must be separated by a "|".
		
		   Notes:
		    • If the keyword contains a comma, then it must be enclosed in %str( )
		    • If the keyword contains any of these special characters: { } [ ] ( ) ^ \$. | * + ? \ each must be escaped with a \ character. (e.g., to find the phrase {My.Issue}, you must enter \\{My\\.Issue\\} as the keyword phrase)
		    • A brief introduction to Perl regular expressions, and a description of the special characters can be found at: http://support.sas.com/documentation/cdl/en/lefunctionsref/63354/HTML/default/viewer.htm#p0s9ilagexmjl8n1u7e1t1jfnzlk.htm
		    • The user-specified issues that are located will be highlighted in blue in the output and designated as "Special"
		
		Example: increased size by|records were read

4. Outputs

The output file is saved as *<user-log-file-name>_logerr.<user-specified-file-extension>* in the user-specified location and contains both a summary and detailed report.

5. Example

In the following example, the %MS_LOGCHECKER macro is used to scan the file *masterlog.log* in the directory path M:\directory\subdirectory\input\. In addition to the default search terms, the keywords "increased size by" and "records were read" will be scanned for and reported by the program. For each search term that is found in the log, the macro will output the line of interest, as well the five lines before and after that line. The resultant report is output in HTML format to the directory path M:\directory\subdirectory\output\.

The following parameters are used in the macro call:

```
%MS_LOGCHECKER(INPUTFILE= masterlog.log,
                INPUTDIR= M:\directory\subdirectory\input\
                OUTPUTDIR= M:\directory\subdirectory\output\,
                REPORTTYPE= html,
                CONTEXTLINES= 5,
                KEYWORDS= increased size by|records were read;
```