LSM Parser v1.0 - User Manual

1. Overview

LSM Parser is a standalone tool designed to analyze log files from Samsung Large Screen Manager (LSM). It parses raw Excel (.xlsx) logs, extracts technical data (IPs, Firmware, Temperatures), and generates human-readable reports in both Excel and HTML formats.

Key Features:
- Standalone: No installation or Excel license required.
- Robust: Automatically handles and repairs corrupted log files.
- Batch Processing: Supports wildcards to process multiple files at once.
- Speed: significantly faster than legacy PowerShell tools.

2. Installation

No installation is required. The application is provided as a single executable file: 'LSMParser.exe'.
Simply copy this file to any location on your computer (e.g., Desktop or Documents) and it is ready to run.

3. Usage

There are three ways to use the tool:

A. GUI / File Selector (Easiest)
   1. Double-click 'LSMParser.exe'.
   2. A file selection window will appear.
   3. Choose your target .xlsx log file.
   4. The tool will run and generate reports in the same folder as the log file.

B. Drag and Drop
   1. Drag an .xlsx file directly onto 'LSMParser.exe'.
   2. A console window will open, show progress, and wait for you to press Enter.

C. Command Line / Batch
   Run from a terminal (PowerShell or CMD) for advanced options:
   > LSMParser.exe <filename>   (Process a single file)
   > LSMParser.exe *.xlsx   (Process ALL excel files)
   > LSMParser.exe "Logs/*.xlsx"   (Process files in a subfolder)
   > LSMParser.exe --help   (Show help)
   > LSMParser.exe --version   (Show version)

   Note: If you paste a path with spaces without quotes, the tool will attempt
   to auto-correct it ('Smart Stitching').

4. Output Reports

For every input file (e.g., 'Log.xlsx'), two report files are created in the same directory:

1. Excel Report ('Log-Parsed.xlsx'):
   - SBBInfo: Firmware versions, Groups, Video Wall resolution.
   - CabInfo: Detailed cabinet status (Temp, Backlight, Color Correction).

- CabLayouts: Visual grid showing physical arrangement.

2. HTML Report ('Log-Parsed.html'):
  - A quick-view summary that can be opened in any web browser.

Note: Files ending in '-Parsed.xlsx' are ignored to prevent re-processing.

5. File Loading Strategy (DRM Support)

The parser uses a smart multi-stage strategy to open Excel files, ensuring maximum compatibility even with encrypted files:

1. NASCA DRM Detection: If a file is encrypted with NASCA DRM, the tool immediately attempts to use Microsoft Excel (via COM automation) to decrypt and read it transparently. *Requires Microsoft Excel to be installed.*
2. Standard Parser: For normal files, it uses a high-speed library (OpenPyXL) that does not require Excel.
3. Fallback Mode: If the Standard Parser fails (due to file structure issues) or if DRM is present but Excel fails, it falls back to a 'Raw XML' parser.

Note: Users with NASCA-protected files must have Microsoft Excel installed and be logged in to their DRM client.

6. Troubleshooting

- 'PyWin32 not installed': The executable is missing required libraries for DRM support. Please use the latest official release.
- 'Excel Automation failed': You have a DRM file, but Microsoft Excel is not installed or cannot open the file. Ensure you can open the file manually in Excel first.
- 'IllegalCharacterError': The log contained hidden control characters. The tool automatically sanitizes these fields.
- Window closes instantly: The tool is designed to exit when finished. Run from a command prompt to see persistent output.