# TZip Validator and Fixer for GV iTX

Version 0.9, need to add details and variables about the TZip header values to save and compare in 1.2.5 and 1.2.7.

## Executive Overview

This tool is designed to monitor a watch folder for TZip files made of Targa sequences, if it finds a file it unzips the file to a TEMP folder, and adds a corner dot to TGA, rezip and move corrected file to a processed folder.

This program was created as a testing tool and is not supported by Grassvalley.

## Functional Spec Logic

### Scan Watch Folder for New TZips

This is a sleeping function that wakes up and scans watch folder for new TZip files every five seconds.

When it finds a new TZip file it uses file name to run through section 1.2.2 through 1.2.9 [Special Error: can’t scan watch folder.] Before running file name, this function should check for Rejected and Completed Folders. [Special Error: Can’t find Rejected and Completed Folders] This function should also change label (lblStatus) to report: Sleeping, Folder Scanning, and Processing <File Name>.

### Unzip to TEMP folder

Program renames the .tzip extension to zip. Then the tool uses the included command line 7z.exe to unzip file to the windows %TEMP% folder with name of .tzip file. Stores the unzipped directory in strUzDir string. [Log step and string] Function should clear tbLogging for each file.

### Count and Check File names

Program sees if .TGA file is in the root directory, if not it goes one directory deeper for the .TGA files. [1.2.3 Error: TGA files not found]. If there is any subdirectory starting with “\_” like “\_MACOS” it will delete that directory. [1.2.3 Error: Can’t delete extra directories in TZip]. lFileCount long stores count of TGA files, it then checks the first and last numbers of the name for sequence validation. [1.2.3 Error: TZip wasn’t created in sequential order, or there are missing TGA files in the sequential order.].

lFileStart and lFileEnd (both long) is computed for sequence as well an strSeqPath string. [Log step and values]

### Optional Error: Move to Rejected Folder and Create Text Doc

In the case of an error the %TEMP%/strUzDir is deleted, and the renamed zip file is transferred to the rejected folder and a text file is created with the reason for the rejection, from string sent with error message. [Log step and values]

### Jump to Middle Frame Read and Store Header Data

Store size, compression, pixel depth, byte read order for TGA file. [Write all to log.]

### Compute Corner or Use Default of Lower Left



Scan middle frame for first visible pixel; if it is in top half it is a top corner, and if it is in left half it is a left corner pixel. If file is uncompressed find the seek location lSeekLocation (long) to write in future frames. If all frames are transparent use Lower Left pixel. [Log step and value]

### Loop Through Sequence Compare Header, Then Seek and Write Pixel

lFileCur (long) is incremented for each file. Header is compared. [1.2.3 Error: Frame <lFileCur> doesn’t match same values as preceding or middle frame.] Close file and open for writing seek to corner value and write 10101009 (RGBA hex) for odd frames and 20202008 for even frames. [1.2.3 Error: Can’t write corner pixel in to <IFileCur> file.] [Log step and final lFireCur]

### Rezip to TEMP Folder

Rezip folder to TEMP folder [1.2.3 Error: Can’t rezip corrected folder] [Log step]

### Move and Rename Zipped File, and Clean Up

Call API to move and rename zipped file. [1.2.3 Error: Can’t move and rename zipped folder]. Then Delete the old unzipped folder in temp folder [Error Special: can’t delete old temp folder] [Log step]

## Functional Spec Interface

### String Section for Folders

There should be a way to input 3 folders: Watch, Rejected and Completed Folders, preferably with a selection button. Variables: strWatchDir, strRejectedDir, str CompletedDir.

### Label to Report Status (lblStatus)

This label should report: Sleeping, Folder Scanning, and Processing <File Name>

### There Should be Large Rich Text Box which Should Mirror Logging Status

tbLogging should be multiple lines to repeat Logging Status

### Saving State

Variables used for 1.3.1 should be saved for next use of program.