

# LTRT WavFileAnalyzer Manual



**Revision Sheet**

<b>Release No.</b>	<b>Date</b>	<b>Revision Description</b>
1.0	18/12/2009	Initial Revision
1.1	06/01/10	Revision 1
3.0	4-2-2010	Retail Release

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## I INTRODUCTION

LTRT WavFileAnalyzer is software product that provides automated content verification for stored media files and is designed for Broadcasters, Content and Service Providers, allowing them to analyze the audio content along with the container. LTRT WavFileAnalyzer performs conformance and quality analysis as well as a range of customized checks for Dolby E. LTRT WavFileAnalyzer improves the efficiency of the QC process within the content management workflow and ensures that content verification is thorough and consistent.

## II INSTALLATION

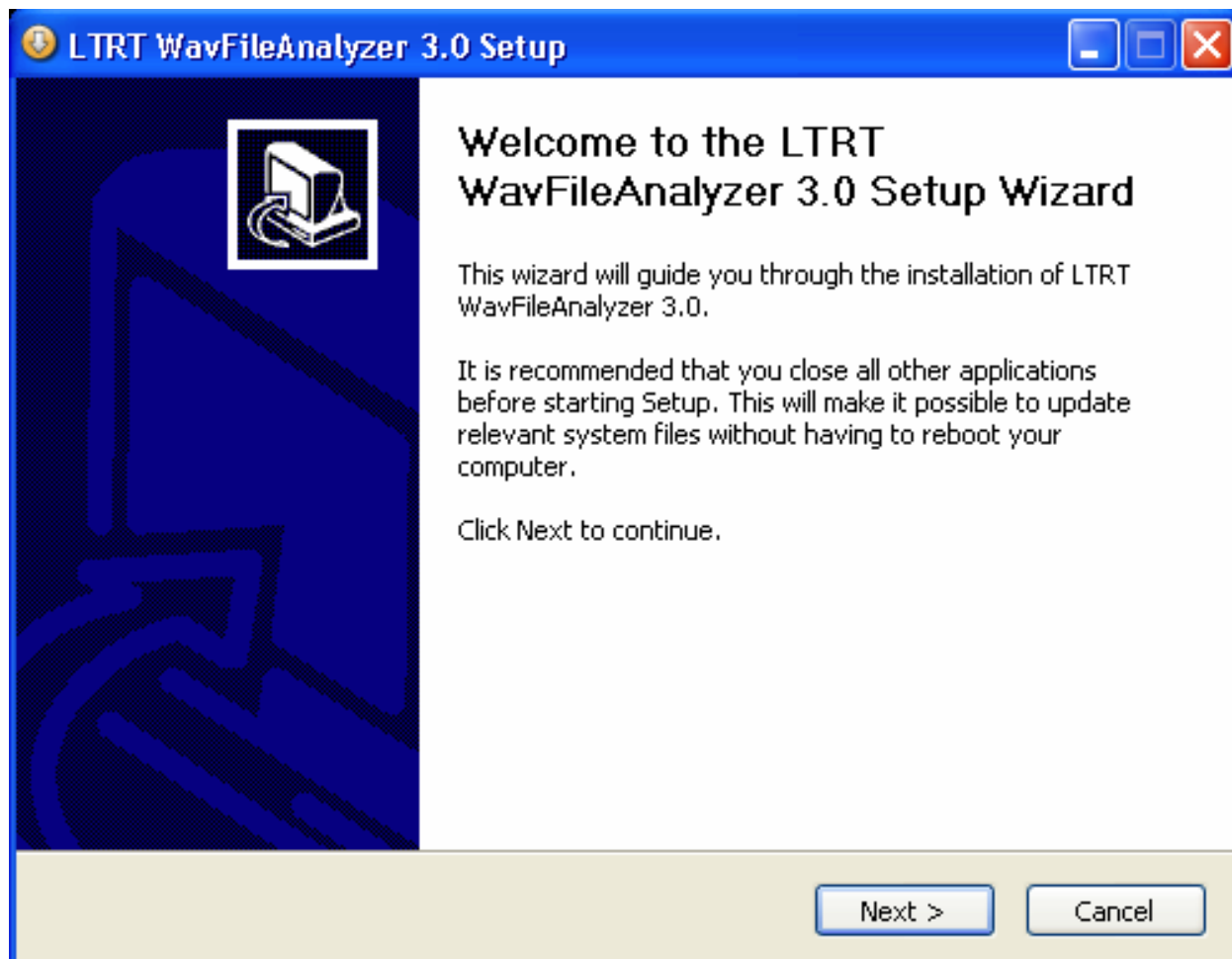
### II.1 System Requirements

- Windows XP or Vista with 1 available USB port for iLok smart key
- Active iLok account and iLok USB smart key (not provided)

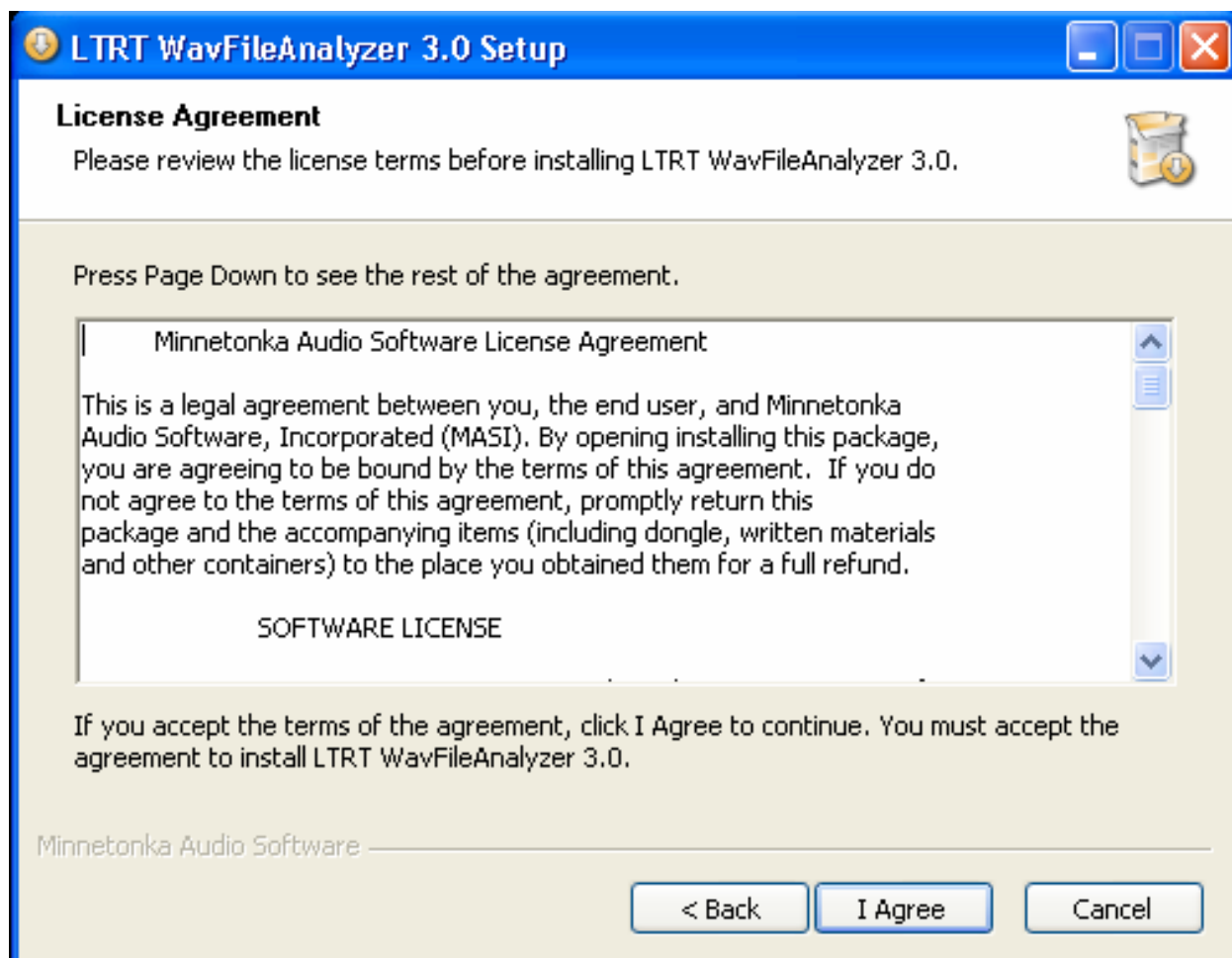
### II.2 LTRT WavFileAnalyzer on a PC

To install LTRT WavFileAnalyzer on a PC:

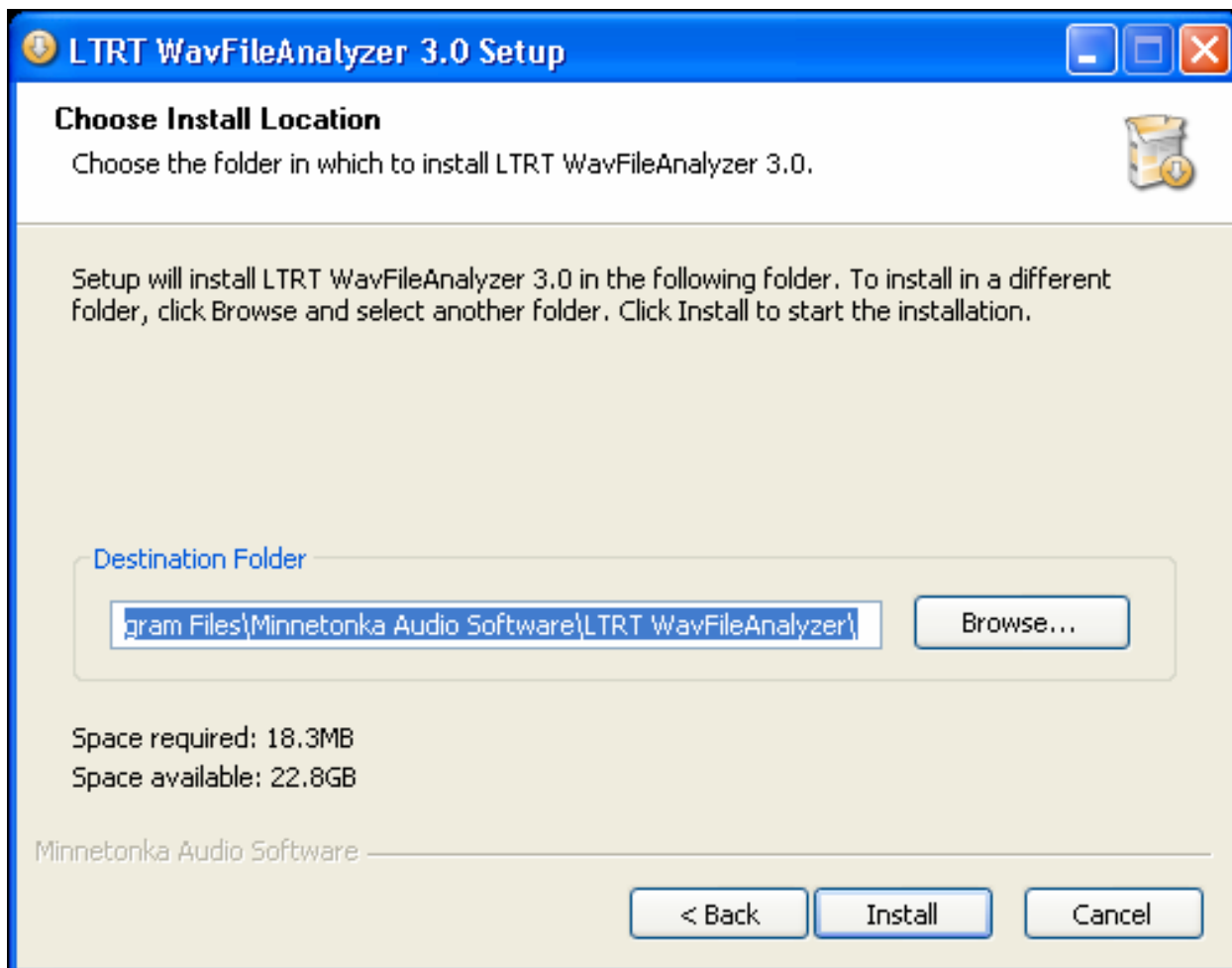
1. Insert the CD into the optical drive and run the program, or double click to extract the installer from a downloaded file.
2. Launch LTRT WavFileAnalyzer Setup.exe
3. Read the introduction, and then click Next.



4. Click “I Agree” to the terms in the license agreement to proceed.



The system automatically installs LTRT WavFileAnalyzer in C:\Program Files\Minnetonka Audio Software\ LTRT WavFileAnalyzer\, and then places icons on the desktop and under the Start menu.



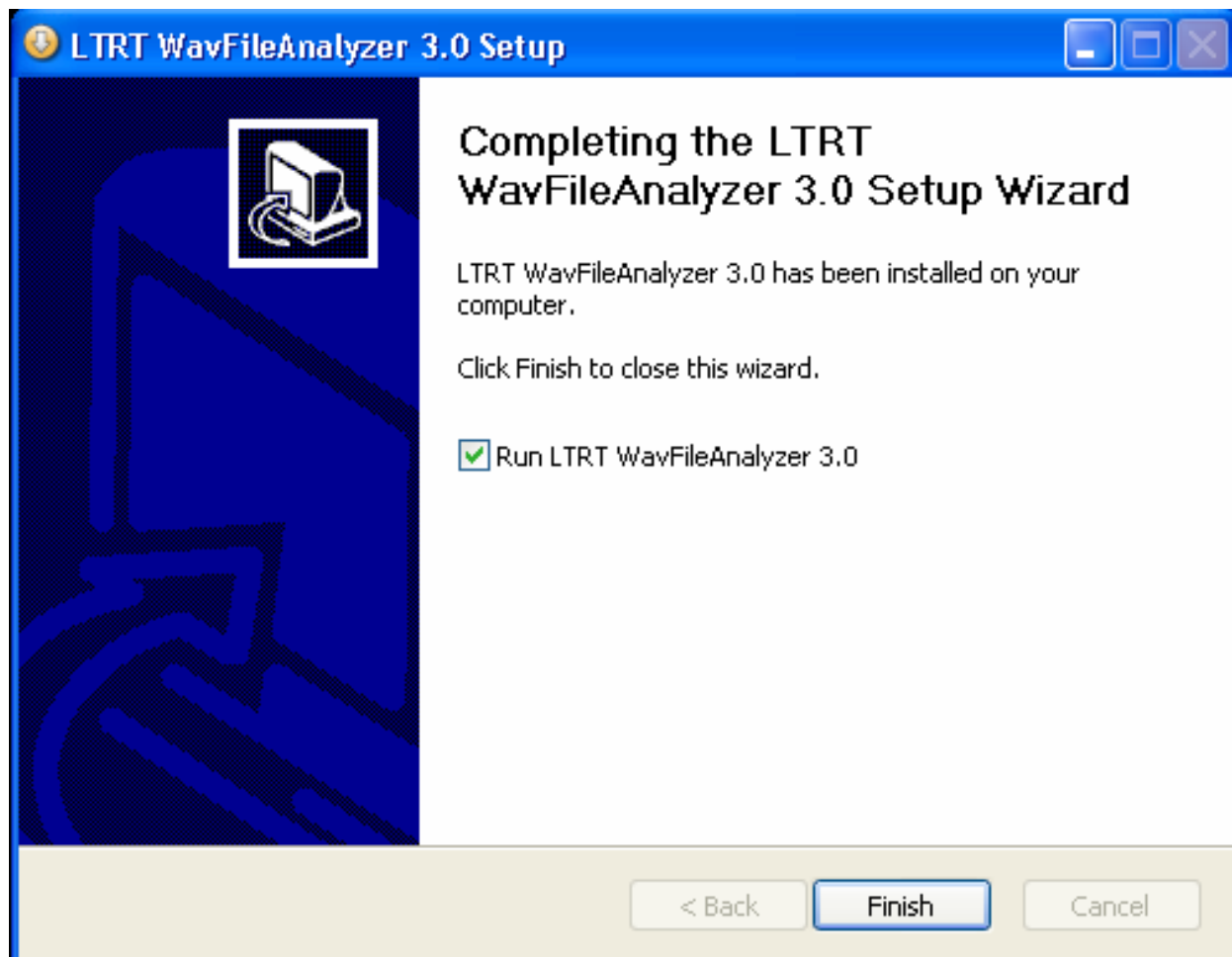
Note: After installing LTRT WavFileAnalyzer, you must restart your PC before the program can be used.

5. You will then be directed to install the interlok drivers for iLok support.





Once this setup is complete, you will be redirected to the LTRT WavFileAnalyzer to finish the installation and restart your machine.



### II.3 Using the LTRT WavFileAnalyzer iLok (*iLok dongle not supplied*)

The license stored on the iLok smart key authorizes your system to use the application. Insert the iLok into an available USB port before opening the application. The iLok key must remain in the USB port while the software is in use.

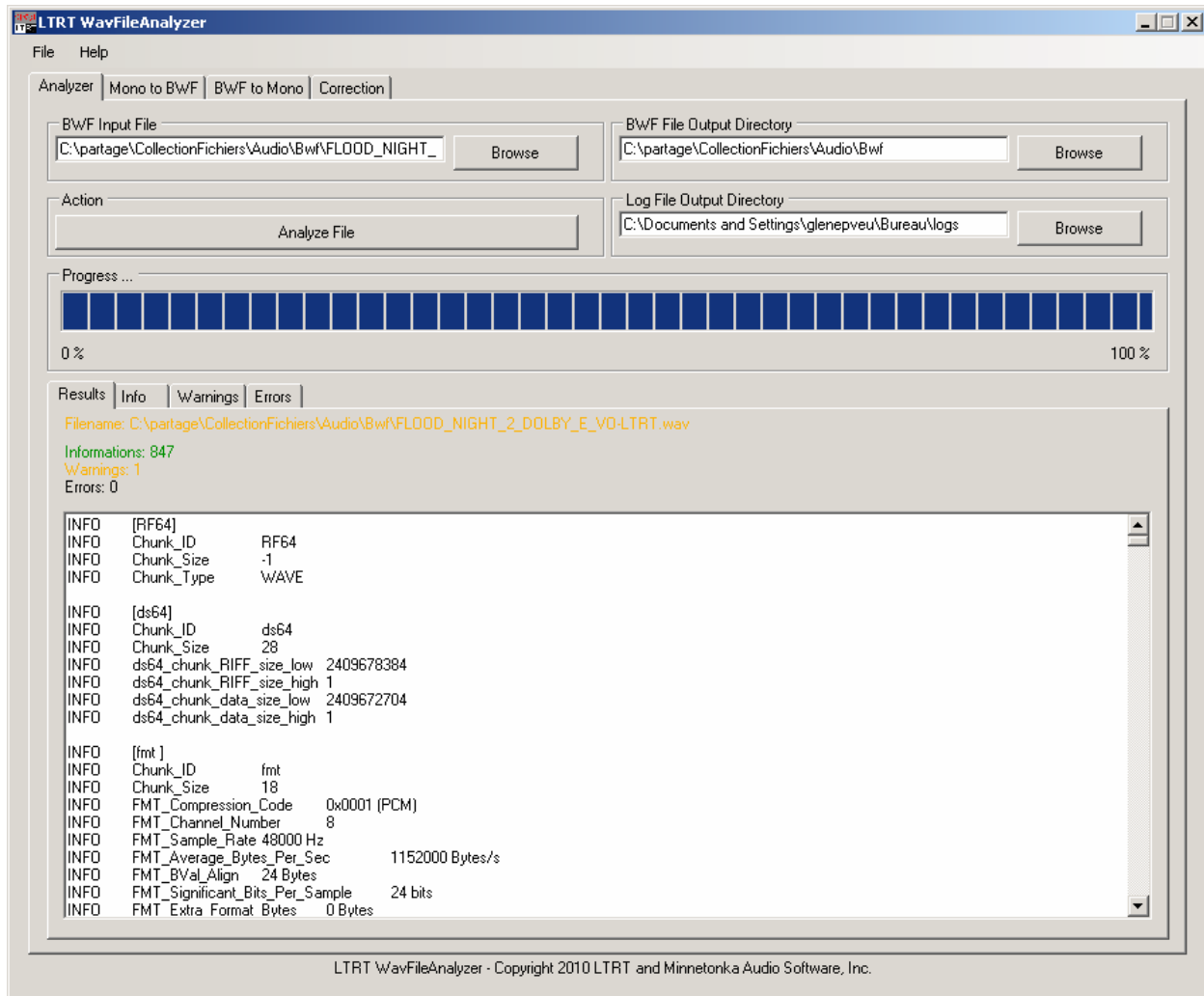
The iLok website allows you to manage the licenses for all your iLok-protected applications in one place. Registration on iLok.com is simple. To register your license:

1. Go to [www.ilok.com](http://www.ilok.com).
2. Follow the directions to sign up for a free account.
3. Download and install the iLok client software.
4. Log in to your account.
5. Synchronize your iLok with your account.
6. View the licenses on your newly registered iLok.
7. Add and edit the name of the iLok for differentiation if you own multiple iLoks.

## Consider Subscribing to iLok Zero Downtime Coverage

The iLok.com Zero Downtime program enables iLok owners to immediately replace licenses in case an iLok is broken, lost, or stolen. See [www.ilok.com](http://www.ilok.com) for program details and restrictions.

## III LTRT WAVFILEANALYZER



## III.1 Analysis

### III.1.a Chunk Analysis

The analysis is performed for all the fields defined in the following chunk:

RIFF  
RF64  
ds64  
fmt  
data  
dbmd  
BEXT  
LIST

Other chunks will only appear with their name and size. If an incorrect size is detected, this will be reported in the log file.

### III.1.b Data content analysis

#### *III.1.b.i PCM*

The process looks for each sample and reports the time code into the log file whenever it is over -3dBFS . It also reports the largest sample detected for each channel.

#### *III.1.b.ii SMPTE 337M*

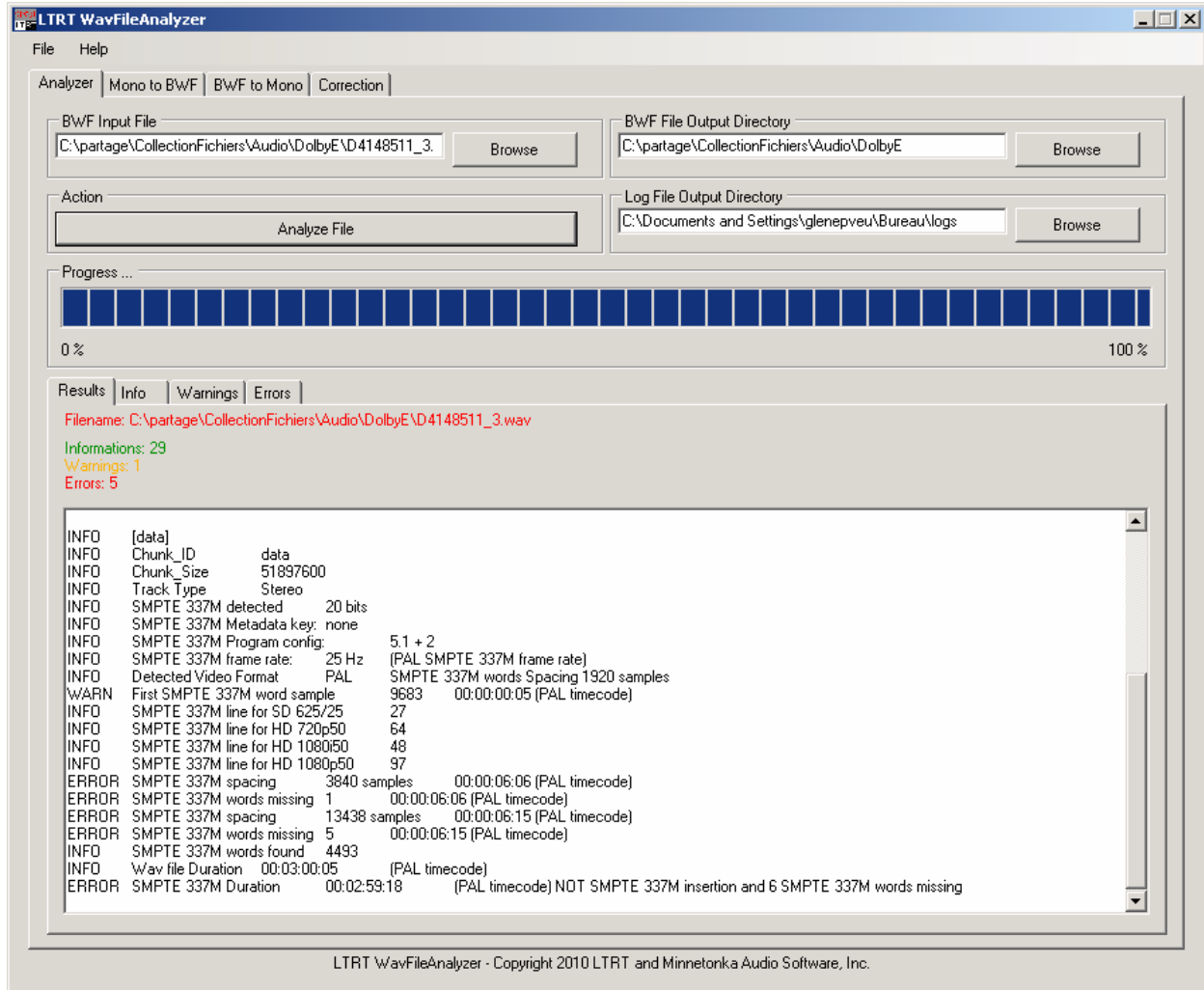
SMPTE 337M: Pa, Pb, Pc, Pd first detection for alignment with video calculation

Video format calculation:

PAL: SD 625/25 HD 720p50 HD 1080i50 HD 1080p50  
NTSC: SD 525/30 HD 720p60 HD 1080i60 HD 1080p60

SMPTE 337M: Pa, Pb, Pc, Pd spacing all along the file  
Check SMPTE 337M quantification (16 or 20 bits)

Count the number of SMPTE 337M words and check coherency with the total duration.



### III.1.c Log File

For each field detected, 3 statuses can be set: INFO for information, WARN for warning and ERROR for error.

The chunk Name is always INFO

The chunk size is calculated whether regarding the file size or regarding the next chunk position in the file. In case of corruption of this value, the analysis will try to find the following chunks:

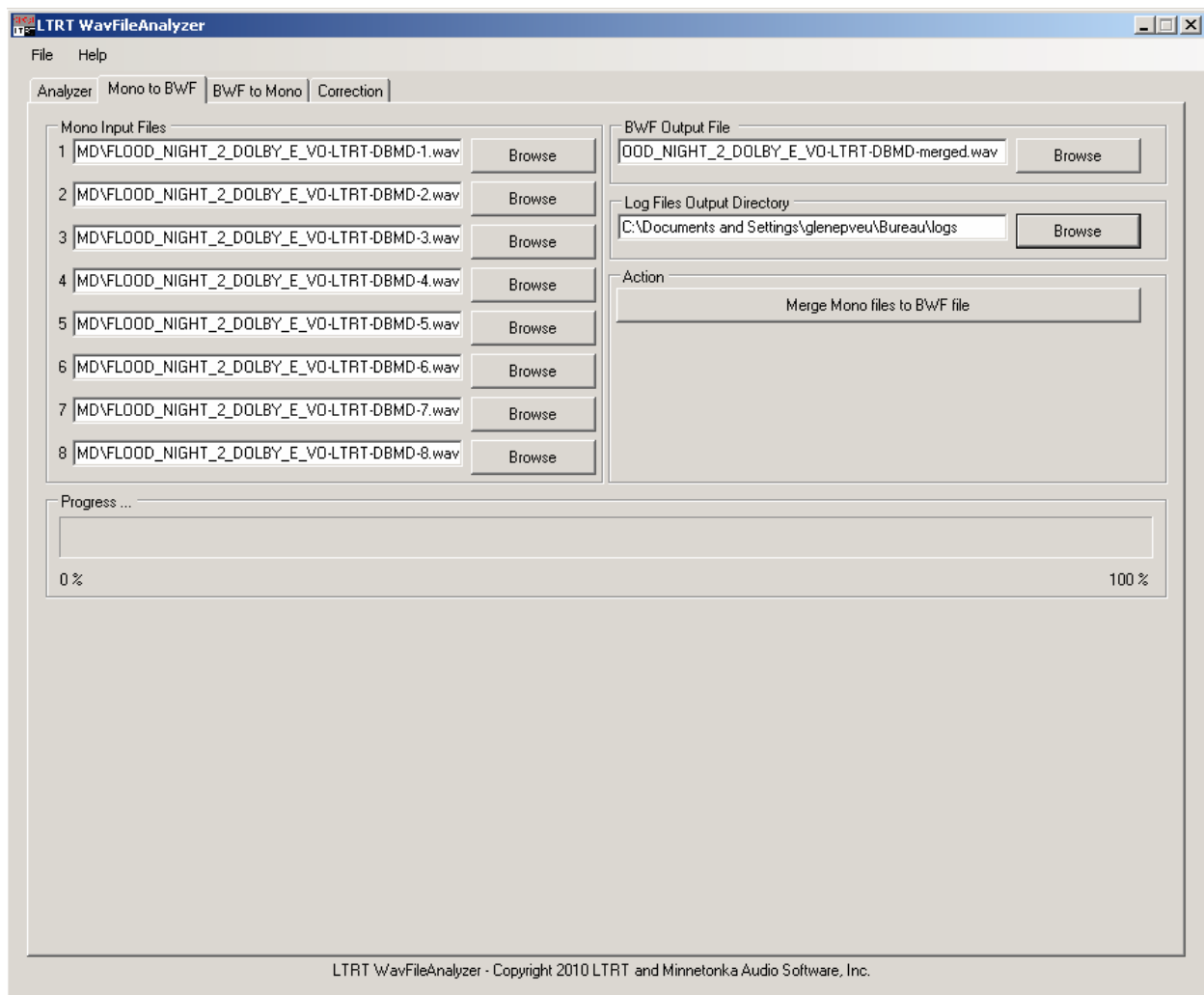
RIFF  
fmt  
data

When an error is detected in the analysis, the file will not be supported correctly. You can try to correct the error by splitting the BWF into mono and recombine the mono back to BWF. This will remove all the optional chunks and may clear the errors.

## III.2 Merge mono files into a BWF file

This function starts with a file analysis of all the mono files and then merges them into a single BWF file.

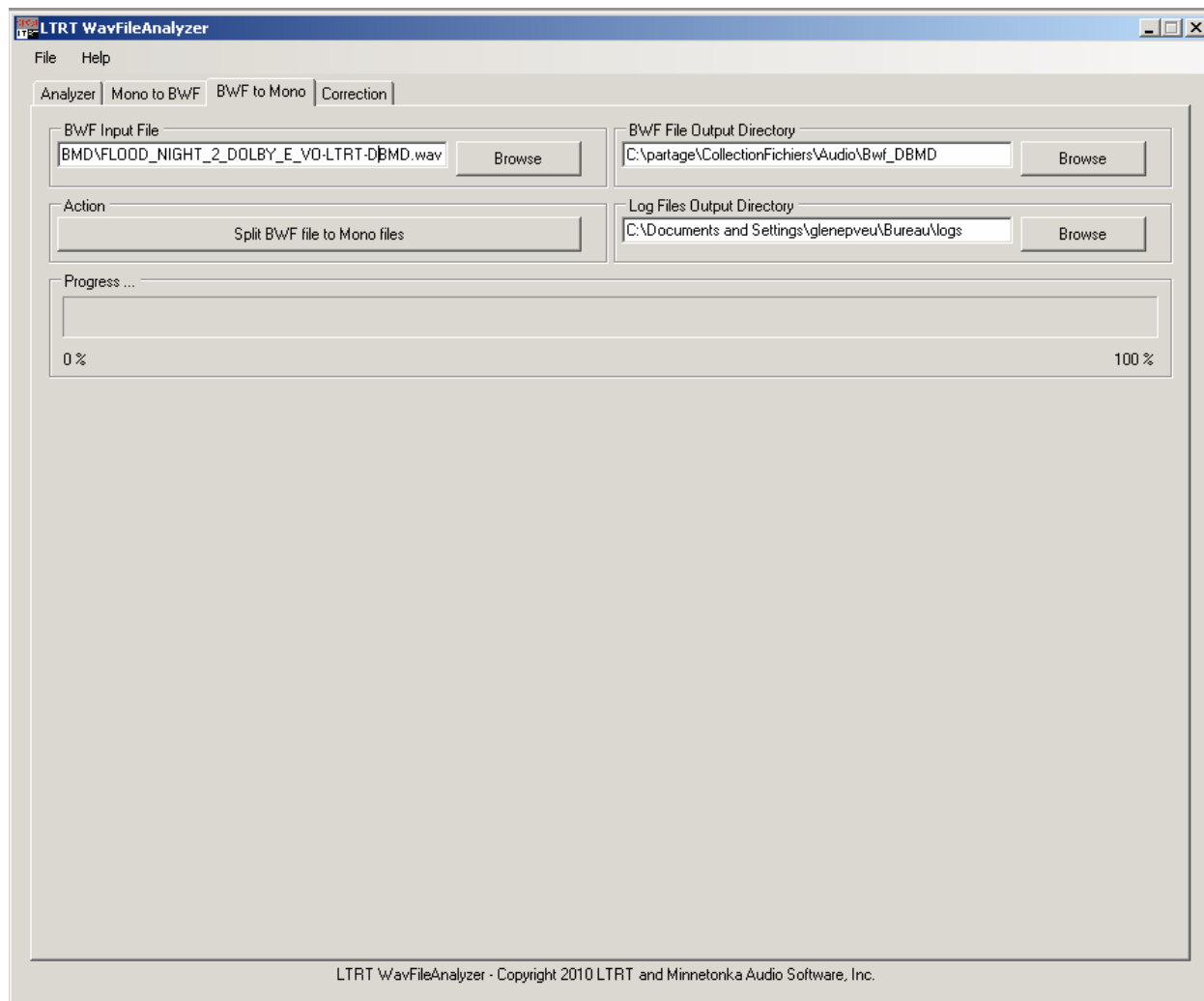
To merge mono files into a BWF file, browse one by one to the required mono files (from 2 to 8), define a name for the output file and a log directory where the logs will be stored.



### III.3 Split BWF into mono files

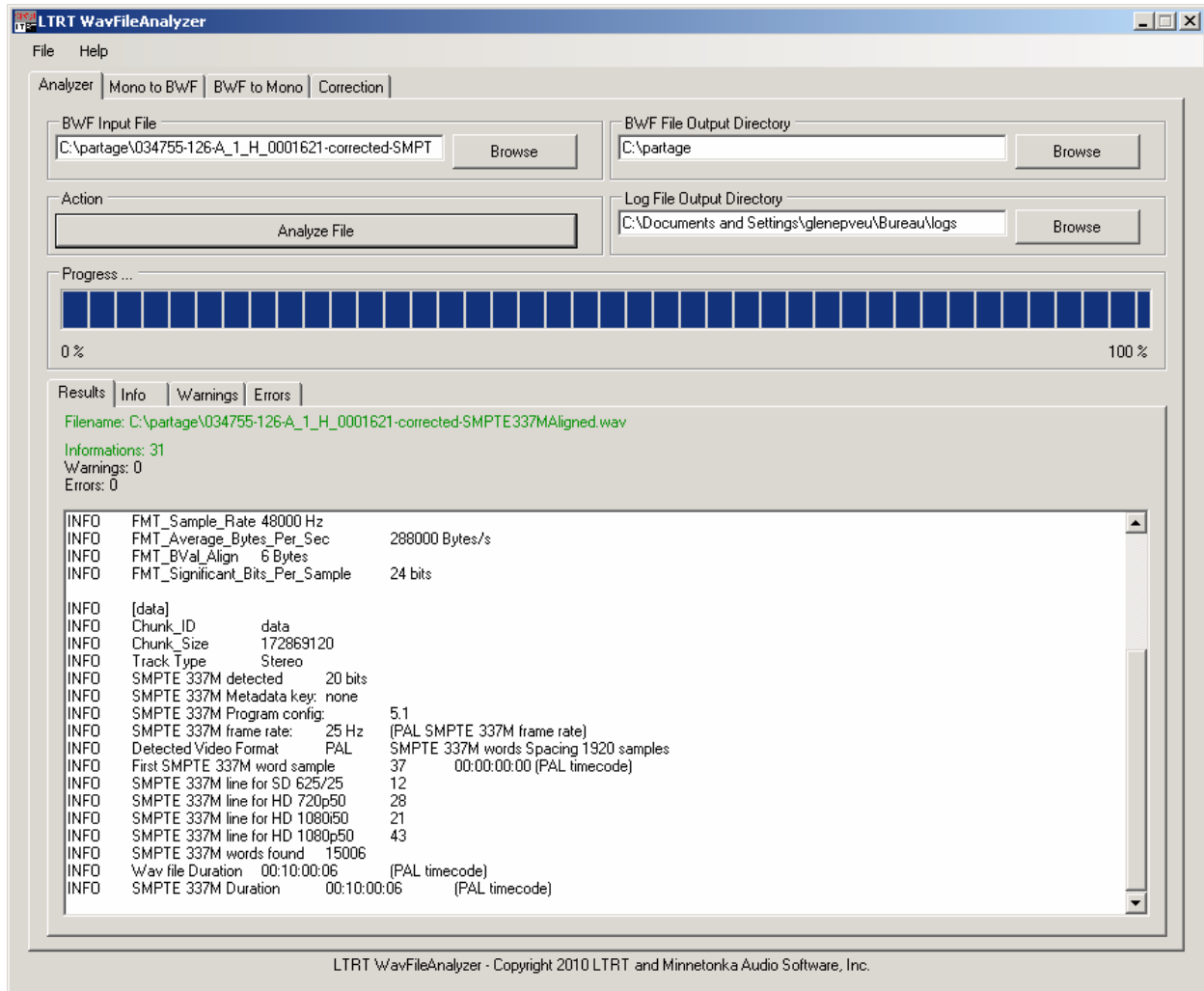
This function starts with a file analysis and then splits it into mono files.

To split a BWF into mono files, browse for the BWF file, define a path for the output files and a log directory where the log will be stored.



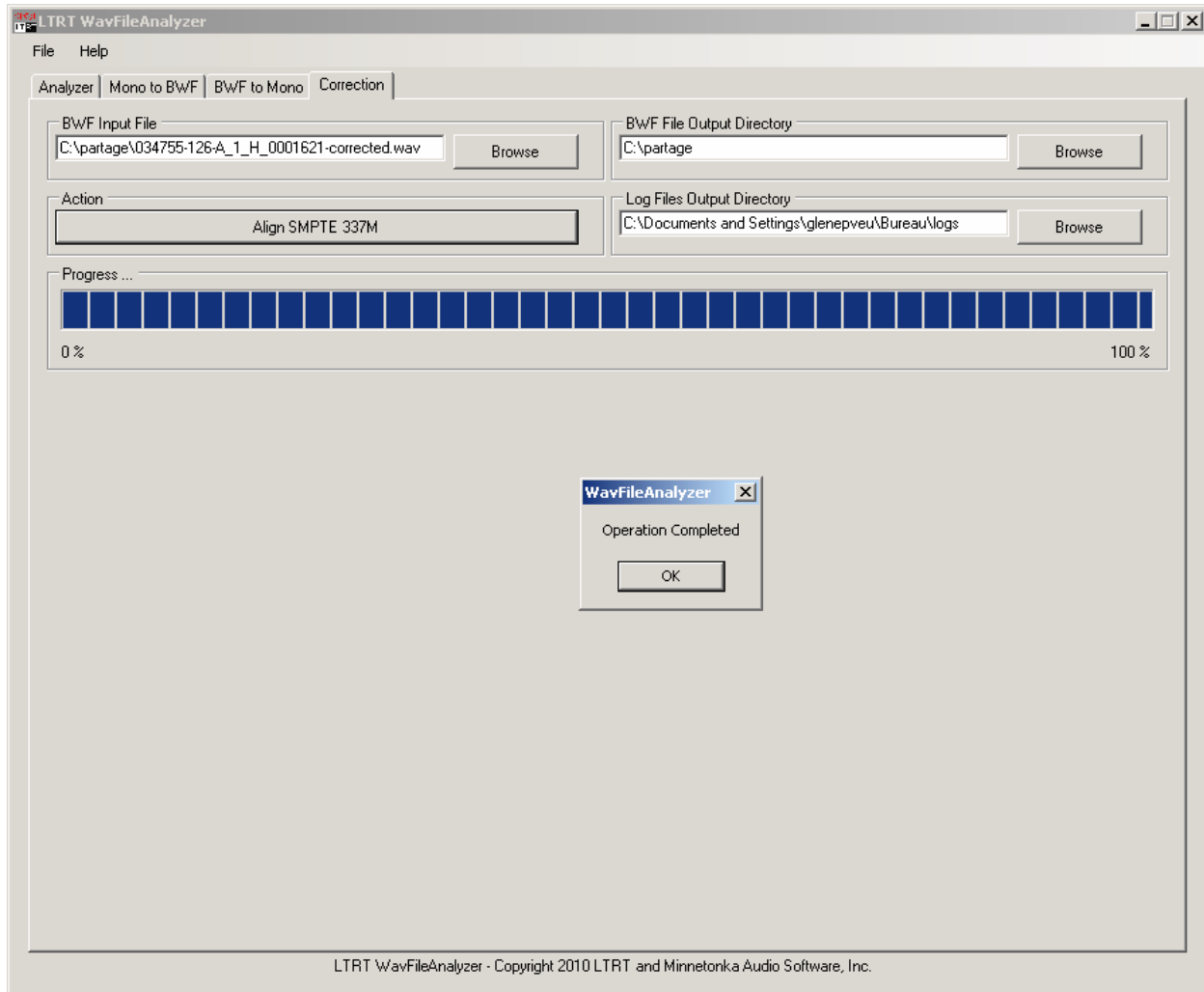
## III.4 Align SMPTE 337M

This process detects the first SMPTE 337M Pa, Pb, Pc, Pd sequence and redefines the first guard band if needed. This process expects that the Pa, Pb, Pc, Pd spacing is correct all along the file.



## IV CONCLUSION

"LTRT WavFileAnalyzer is the software based solution you need in your tapeless environment. Not only will this tool help you to automate your workflow but it will also generate logs to maintain it. You will save a lot of time troubleshooting by detecting any difference in Wav and broadcast Wav audio files. Thanks to the generated information, you will add a real value in your technical work." Gregoire Lenepveu, LTRT.



## V ANNEXE

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