

# COPY+ V4.0

for SEG-D and SEG-Y files

This version 4.0 of COPY+ is designed with a new graphic interface and is user-friendly to use. It is available in Windows or Linux version.

It allows you copy or convert SEG-D and SEG-Y files, selected on a local or network disk, to all magnetic tapes used in the Geophysics world. You can also transfer all tape formats to hard disk and to tapes.

Its assets with regard to the existing software are its simplicity, its conviviality and its higher speed of transfer.

Changes introduced in revision 4.0:

1. Ftp connection for disk to tape(s) process, for Windows edition.
2. Copy disk to disk
3. Up to five processes per type of copy
4. Select up to three target folders for copy tape to disk
5. New feature "Advanced logs level", logs with more details (Control headers, Channel sets, Traces length)
6. Error messages with more information, command in progress, sense bytes and description
7. New Graphic User Interface
8. Change settings easily for each process
9. New viewers for file headers and file/traces headers list
10. RHEL and CentOS version 8 and Windows 11 compatible
11. SEG-D Rev 3.1 compatible

## Copy disk files to tape(s)

### Files selection:

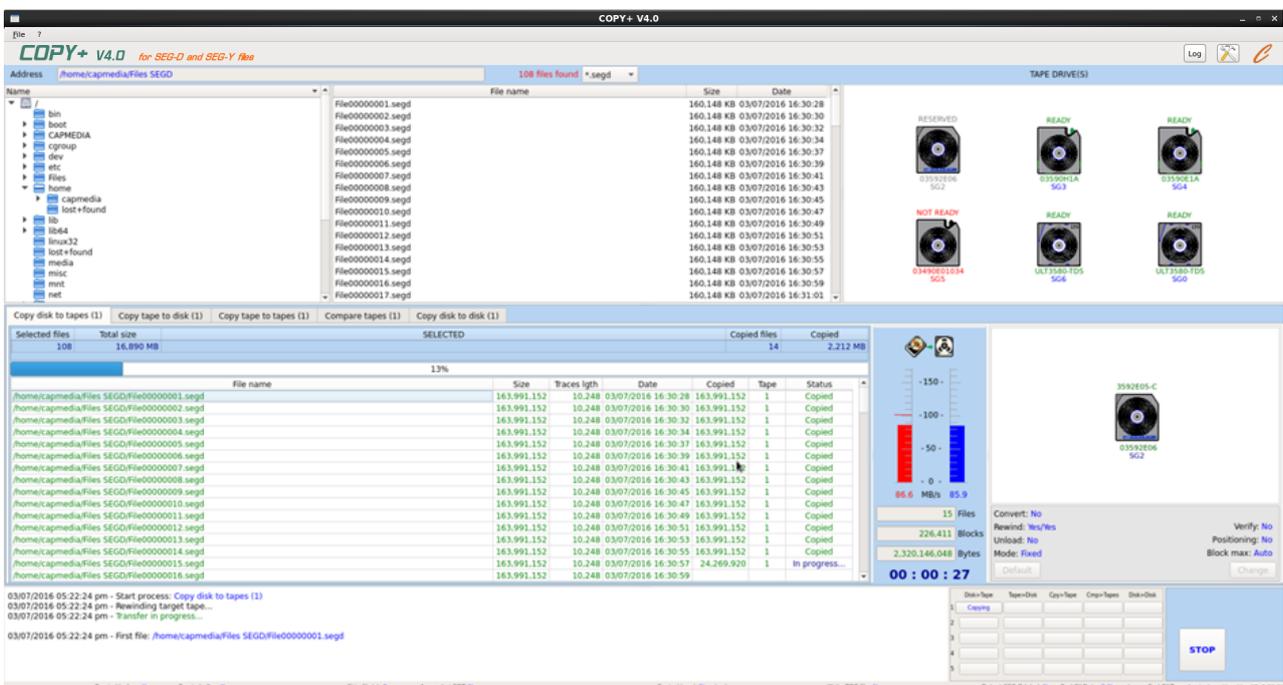
- Select files or folder with subfolder(s) by double click or drag and drop
- Files can be moved, sorted or suppressed in list of selected files

### Tapes selection:

- Double click or drag and drop tape icon to select it
- Select the tape density by right click on its icon

### Features:

- Converting SEG-D 8058 file to SEG-Y file
- Writing up to 2 tapes simultaneously
- Handling multivolume tapes (automatic with stacker)
- Block length up to 4 MB\*
- Verifying copy by reading disk files and tape files and comparing block length and data.
- Change settings easily
- Up to 5 processes simultaneously



## Copy tape files to disk

### Tape selection:

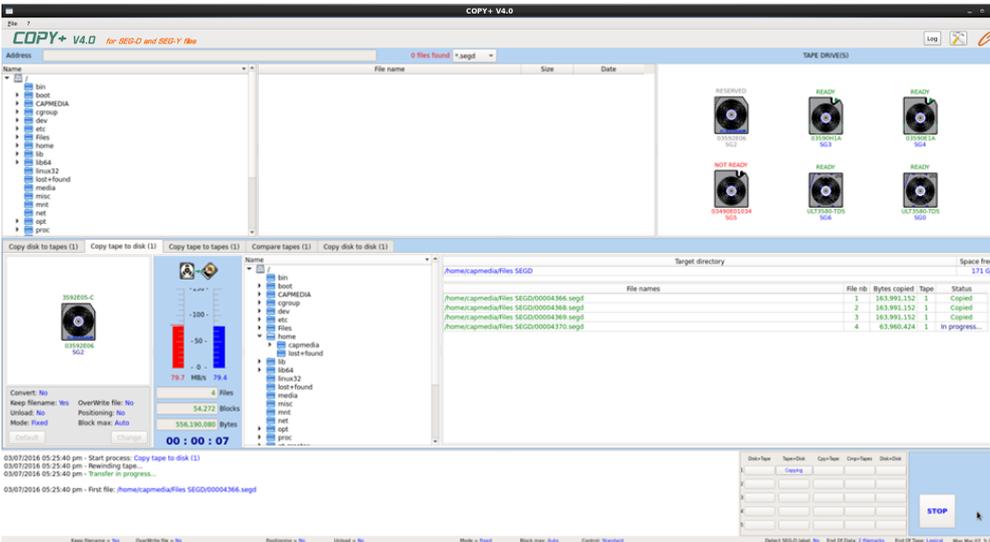
- Double click or drag and drop tape to select it

### Target directory selection:

- Select target directory in tree list box
- Create or rename folders
- Select up to 3 ranges of files in 3 target directories

### Features:

- Converting SEG8 8058 file to SEG9 file
- Handling multivolume tapes
- Block length up to 4 MB\*
- Positioning tape before transfer
- Change settings easily
- Up to 5 processes simultaneously



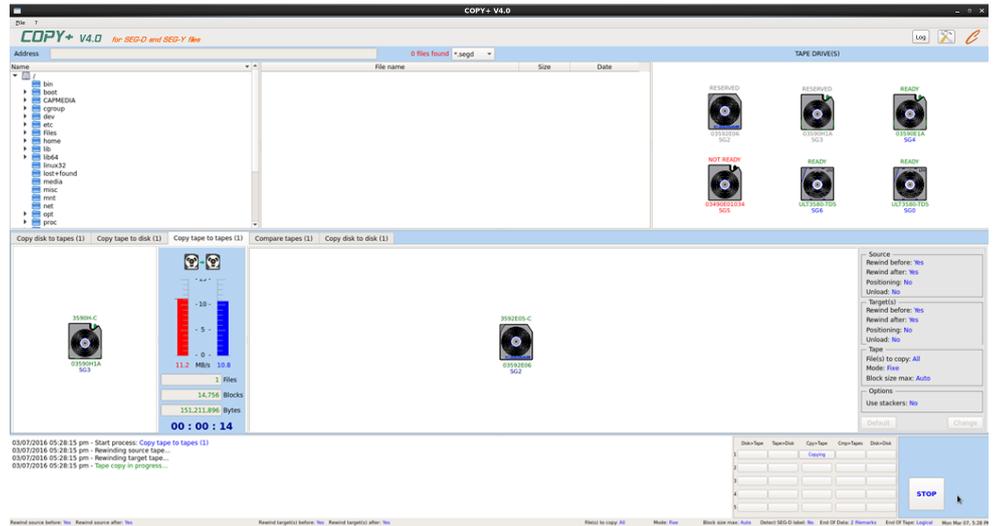
## Copy tape to tape(s)

### Tapes selection:

- Double click or drag and drop tape to select it

### Features:

- Handling multi-copy with input and output stackers
- Handling multivolume input tapes (automatic with input stacker)
- Block length up to 4 MB\*
- Positioning tapes before transfer
- Change settings easily
- Writing up to 4 tapes simultaneously
- Direct copy from input tape to output tapes (no writing to disk)
- Up to 5 processes simultaneously



## Copy disk files to disk

### Files selection:

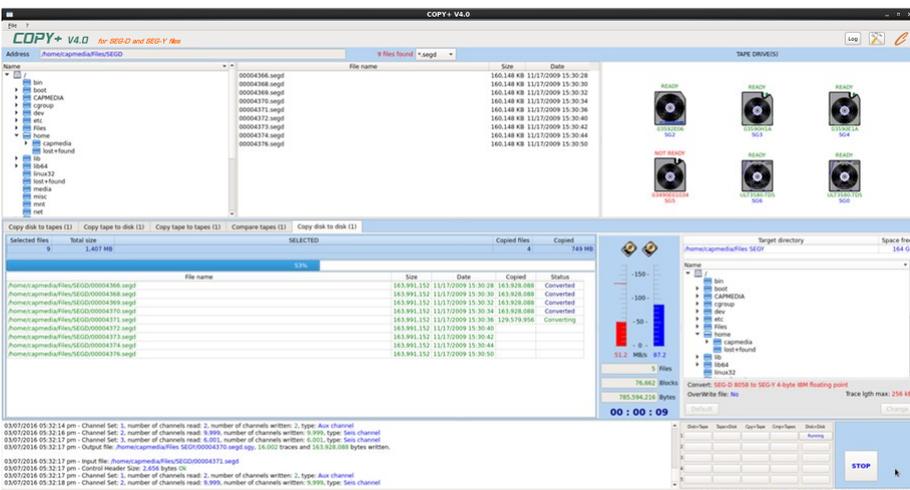
- Double click or drag and drop tape to select it

### Target directory selection:

- Select target directory in tree list box
- Create or rename folders

### Features:

- Converting SEG8 8058 file to SEG9 file
- Change settings easily
- Up to 5 processes simultaneously



## File properties

### File headers detail:

With a right click, access to detail of all headers of the file

The screenshot shows the 'File properties' dialog box for the file `/home/capmedia/Files/Rev2.1/tape10/00000314.segd`. It displays 21 headers found. The main table has columns for Bytes No., Description, Hex, Fmt, Value, and Notes.

Bytes No.	Description	Hex	Fmt	Value	Notes
1 - 2	File Number	0314	bcd	0314	Set to FFFF if file number > 9999, Extended file number is use...
3 - 4	Format Code	8058	bcd	8058	SEGD Format (8015, 8036, 8038, 8048, 8058, 8080)
5 - 10	General Constant	00	bcd	0	1 = CM408, 2 = SEAL, 3 = 408XL
11	Last two digits of Year	07	bcd	07	0 - 99
12H	Number of Additional Blocks in General Header	2	bcd	2	
12L - 13	Julian Day, 3 digits	164	bcd	164	1 - 366
14	Hour of Day	11	bcd	11	0 - 23
15	Minute of Hour	17	bcd	17	0 - 59
16	Second of Minute	10	bcd	10	0 - 59
17	Manufacturer's Code	13	bcd	13	Sercel
18 - 19	Manufacturer's Serial Number	0000	bcd	0	
20 - 22	Bytes per scan	000000		000000	000000 = non blocked record, 100000 = blocked record
23	Base Scan Interval	20	bcd	20	4 = 0.25ms, 8 = 0.5ms, 10 = 1ms, 20 = 2ms, 40 = 4ms
24H	Polarity	0	uint4	0	0x0 = Untested
24L - 25	Reserved	000		0	Not used
26H	Record Type	2	bcd	2	0x2 = Test Record
26L - 27	Record Length	FFF		FFF	FFF = extended record length used
28	Scan Types Per Record	01	bcd	01	
29	Number of Channel Sets Per Record	16	bcd	16	
30	Number of Sample Skew 32 bytes Extensions	00	bcd	00	
31	Extended Header Length	32	bcd	32	
32	External Header Block	32	bcd	32	32 for land operation, FF for marine operation

At the bottom, there is a hex dump showing the raw data for the selected header (Header #32):

```

Position : 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32
Value hex : 03 14 80 58 00 00 00 00 05 07 21 64 11 17 10 13 00 00 00 00 20 00 00 2F FF 01 16 00 32 32
    
```

### File and traces headers list:

With a right click, access to list of all general headers, with description and value for each byte or group of bytes

The screenshot shows the 'File properties' dialog box for the same file, displaying 10,002 traces found. The 'Headers' tab is active, showing a list of headers for 'Channel Set #1'. A tooltip is visible over the 'Scan Type Header #3' entry, showing its details.

Header names \ Bytes	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	
General header #1	03	14	80	58	00	00	00	00	05	07	21	64	11	17	10	13	00	00	00	00	20	00	00	2F	FF	01	16	00	32	32			
General header #2	00	01	3A	00	00	00	00	00	00	00	00	00	00	00	0F	A0	00	02	00	00	00	00	00	00	00	00	00	00	00	00	00	00	
General header #3	00	01	3A	00	00	00	01	00	00	00	06	00	00	01	00	00	00	00	03	01	00	00	00	00	00	00	00	00	00	00	00	00	00
Scan Type Header #1	01	01	00	00	00	00	00	00	00	00	90	03	02	00	03	70	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	01
Scan Type Header #2	01	02	00	00	00	00	00	00	00	00	99	99	10	03	02	00	03	70	00	00	00	00	00	00	00	00	00	00	00	00	00	00	01
Scan Type Header #3	01	03	00	00	00	00	00	00	00	00	01	10	03	02	00	03	70	00	00	00	00	00	00	00	00	00	00	00	00	00	00	01	
Scan Type Header #4	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
Scan Type Header #5	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
Scan Type Header #6	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
Scan Type Header #7	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
Scan Type Header #8	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
Scan Type Header #9	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
Scan Type Header #10	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00

Or access to all traces headers, with description and value for each byte or group of bytes

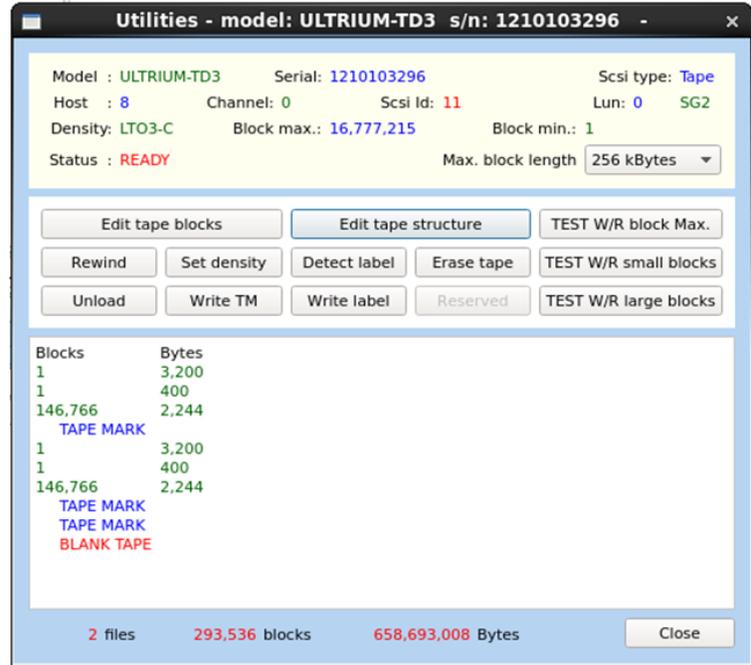
The screenshot shows the 'File properties' dialog box for the same file, displaying 10,002 traces found. The 'Traces' tab is active, showing a list of traces for 'Channel Set #1'. A tooltip is visible over the 'Trace Header Extension Block #4' entry, showing its details.

Header names \ Bytes	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	
Demultiplexed Trace Header	03	14	01	01	00	01	00	00	07	00	00	00	00	00	00	00	00	00	01	3A	00	00	00	00	00	00	00	00	00	00	00	00	00
Trace Header Extension Block # 1	00	00	00	00	00	01	01	00	07	D1	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
Trace Header Extension Block # 2	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	01
Trace Header Extension Block # 3	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
Trace Header Extension Block # 4	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
Trace Header Extension Block # 5	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
Trace Header Extension Block # 6	01	40	01	01	01	00	00	01	40	01	01	01	00	00	15	00	00	00	4F	80	00	00	00	00	00	00	00	00	00	00	00	00	00
Trace Header Extension Block # 7	30	00	00	01	02	00	00	00	00	00	00	00	00	00	09	01	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00

## Utilities

### Features:

- Information about tape drive
- Edit tape block (Hexa and ASCII/EBCDIC)
- Edit tape structure
- Rewind
- Unload
- Set density
- Write Tape Mark
- Detect SEGD label
- Write SEGD label
- Erase tape
- Tape tests



## Approved tape drives

- 4MM** HP 35480A, C1533A, C1537A, C5683A, C7438A
- 8MM** EXABYTE 8505XLS, ELIANT, MAMMOTH EXB-8900, MAMMOTH 2
- DLT / SDLT** DLT2000, DLT4000, DLT7000, DLT8000, SDLT220, SDLT320, SDLT600
- 3490** STK 4890, FUJI 2483K, 2488, 2488E, OVERLAND T490E, L490E, PHILIPS TD3610, TD3620, TD3630, IBM 3490-E01, IBM 3490-E11, IBM 3490-F11
- 3590** FUJI M8100, IBM 3590-B1A, B11, E1A, E11, H1A, H11
- LTO** LTO1, LTO2, LTO3, LTO4, LTO5, LTO6, LTO7, LTO8, LTO9  
IBM 3580-L11, H11, L23, H23, L33, H33, TS2230, TS2240, TS2340, TS2250, TS2350, TS2260, TS2360, TS2270, TS2370, TS2280, TS2290
- 3592** IBM 3592-J1A  
IBM 3592-E05, TS1120  
IBM 3592-E06, TS1130  
IBM 3592-E07, TS1140  
IBM 3592-E08, TS1150  
IBM 3592-55F, TS1155  
IBM 3592-60F, TS1160  
IBM 3592-70F, TS1170



## Operating systems

- Windows** 7, 8.1, 10, 11 32/64 bit  
Server 2008, 2012, 2016, 2019, 2022 64 bit
- Linux** CentOS or RHEL 6, 7, 8 32/64 bit

\*depending tape drive, controller and OS, 512 KB max for Windows, 4096 KB max for Linux