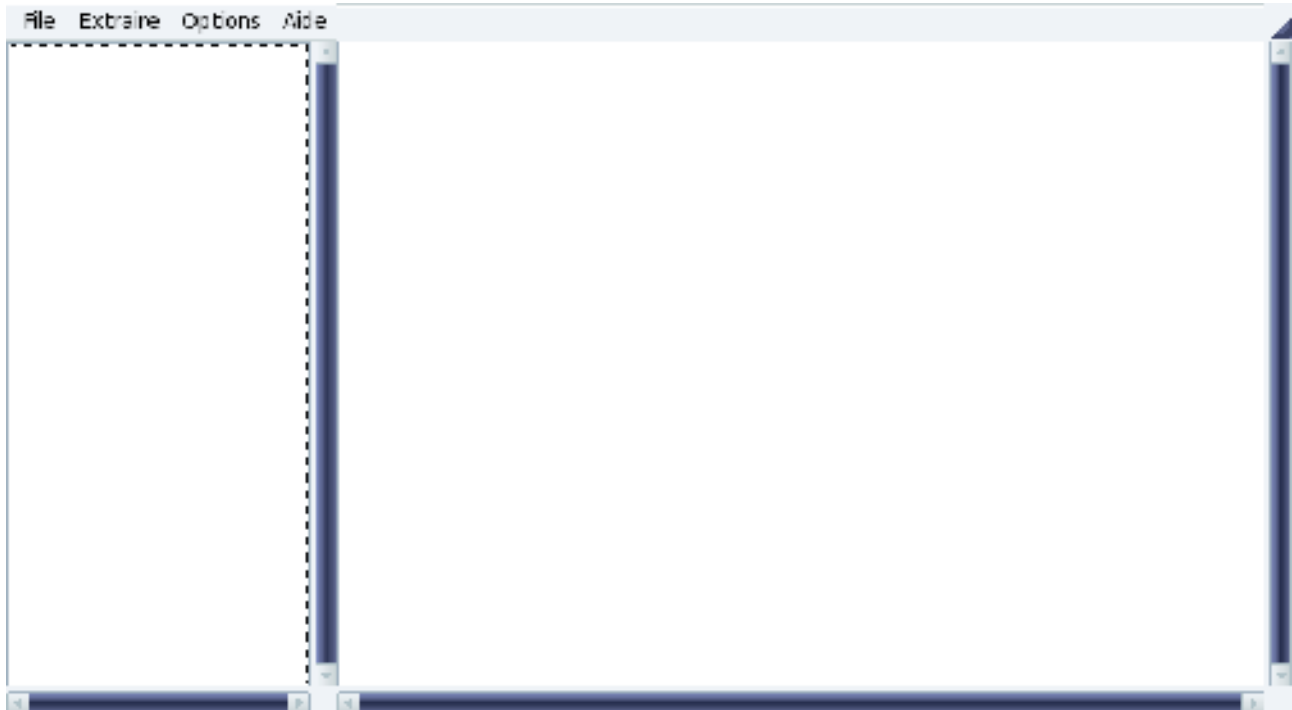


Follow instruction in the INSTALL file to compile and install awseedit.

Then at the prompt, type:

\$awsedit

This leads you to:



### Structure of the menu

File:

1. open an aws tape file (Ctrl-O)
2. Find string or hexadecimals in aws file (Ctrl-F)
3. quit (Ctrl-Q)
4. settings (Ctrl-S)

Extraire (extract)

1. switch to Convesion mode (this will be explained later)
2. load or save configuration file (this will be explained later)
3. set the data type (this will be explained later)
4. record data

Options

1. EBCDIC data expected
2. ASCII data expected

Aide (help)      Some useful informations.

### Warning :

Most comments and legends in Awsedit are in french because this program was intended for Algeria where people master this language.

So when I started to write awsedit in 2007 I never thought that one day I would have to put it on the net. This has been possible, thanks to github.

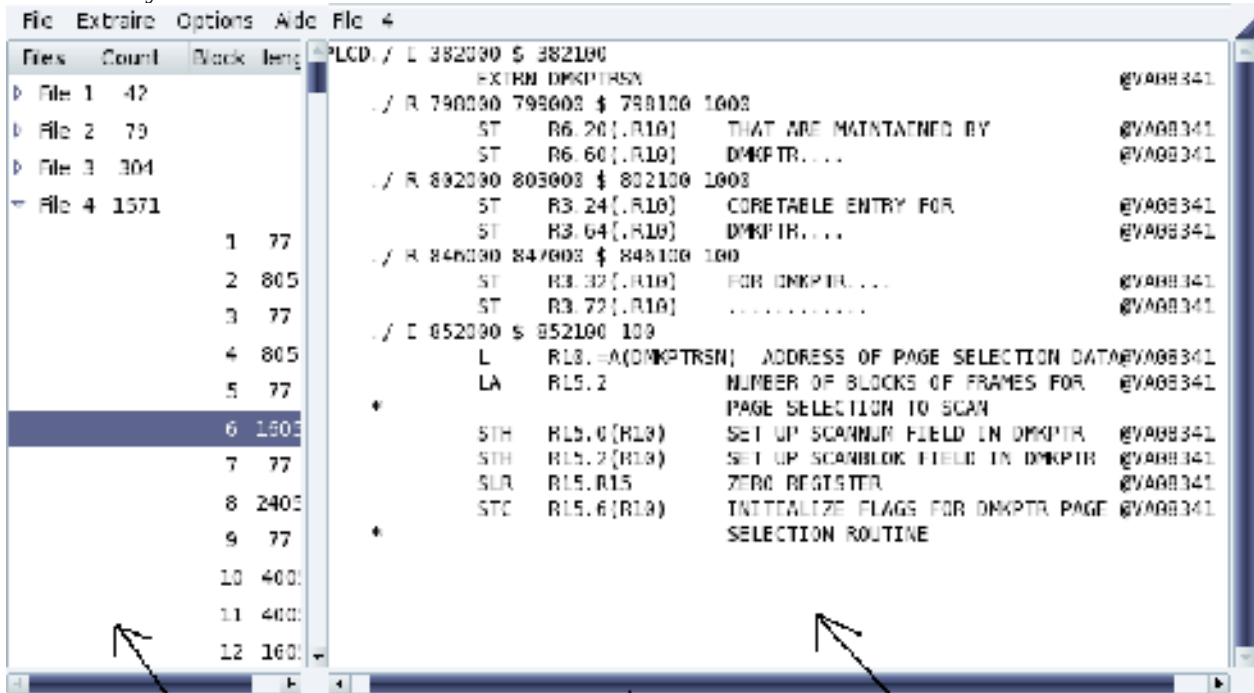
### Trying Awsedit :

Awsedit accepts only one argument: the AWS file name.

At the prompt, type:

\$awsedit tape/ptf-616.aws

This leads you to:



This pane lists files and blocks within them.

This pane displays content of a block

In general, blocks contain logical records with a fixed or variable length. In case of source or executable programs, records are usually 80 bytes length. Thus in awsedit the default record length is set to 80. To modify or adjust it do: **File** → **Settings**



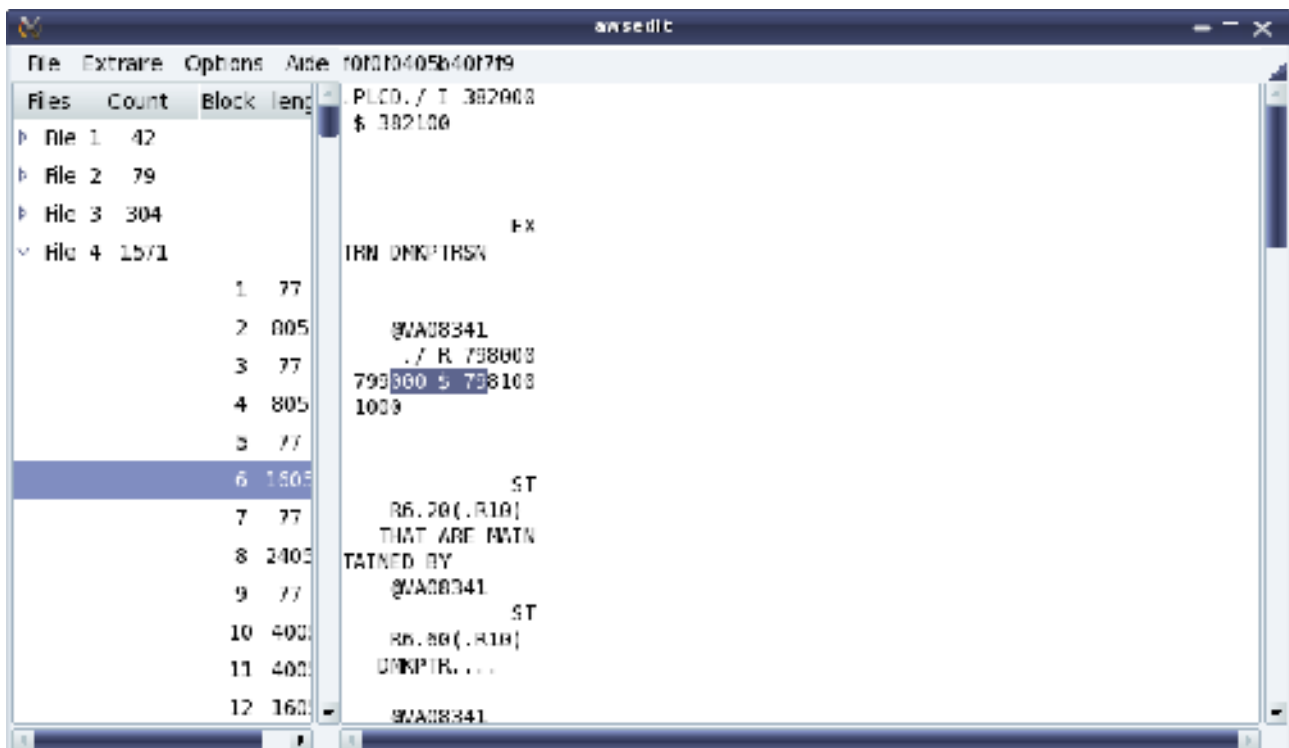
As an example, just modify the record length to 16.



☐ index    ☒ decimal    ☐ hexa    ☐ hex data

Record length:

The right pane becomes:



### About the right pane:

Of course, only bytes that have graphical representation are shown. All the others are replaced by a dot. Nevertheless, It is possible to view the corresponding hexadecimals by highlighting a field then pressing the right button of the mouse. The hexadecimals are displayed on the status bar above.

### The width of the right pane.

I introduced a limit to the width of the right pane to 4750 bytes length because beyond characters will not be viewable. I never mind about that, but if this limit is a constraint I can remedy it.

Notice: This LIMIT is suppressed, the record length could be up to 65535 (maximum block length).

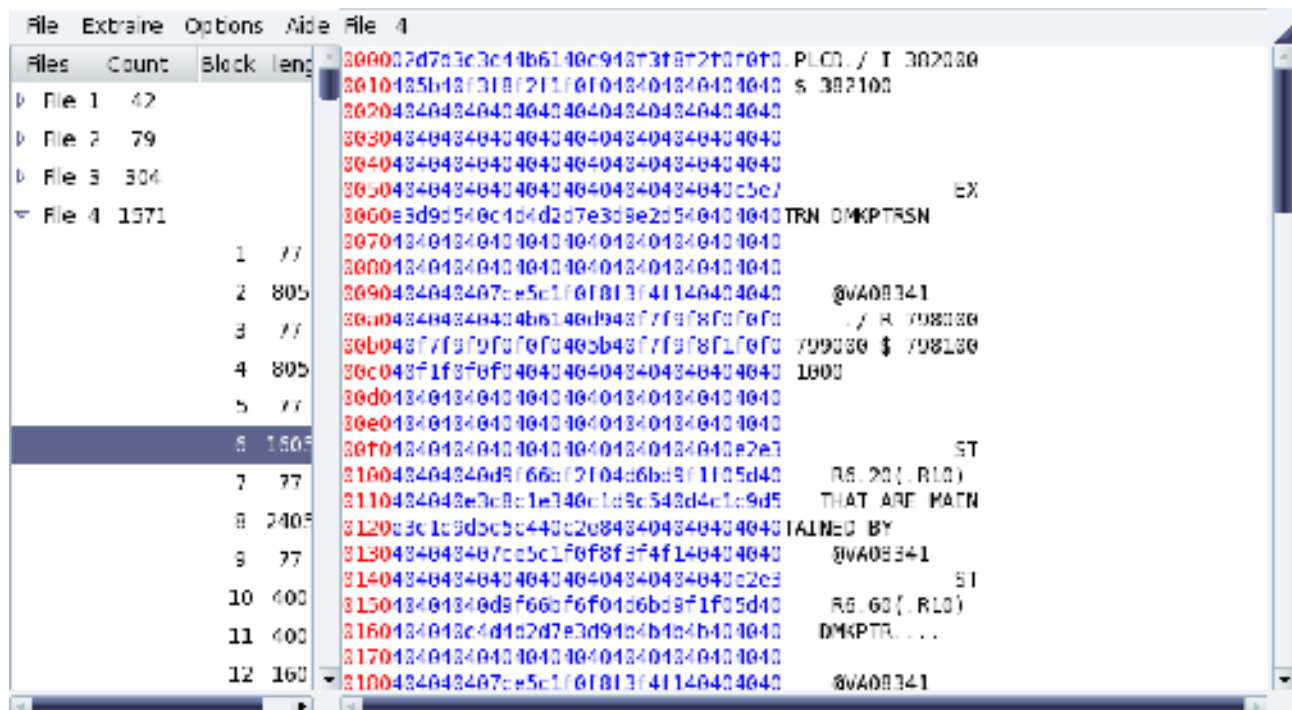
It is possible to display a permanent hexadecimal array and (or) index by doing:

**File → Settings**

then checking the following boxes



This leads you to:

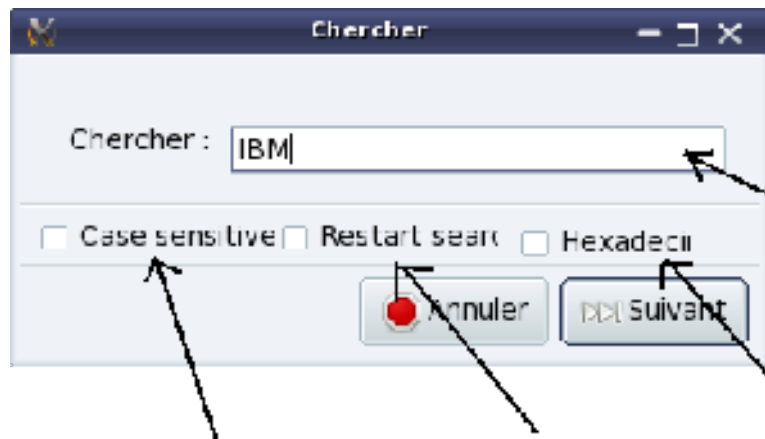


The index is colored in red and the hexadecimal array is colored in blue.

In both cases, even with the index and (or) hexadecimal arrays, you can do a search:

**File → Rechercher(Find) or Ctrl-F**

The following dialog box will be displayed:



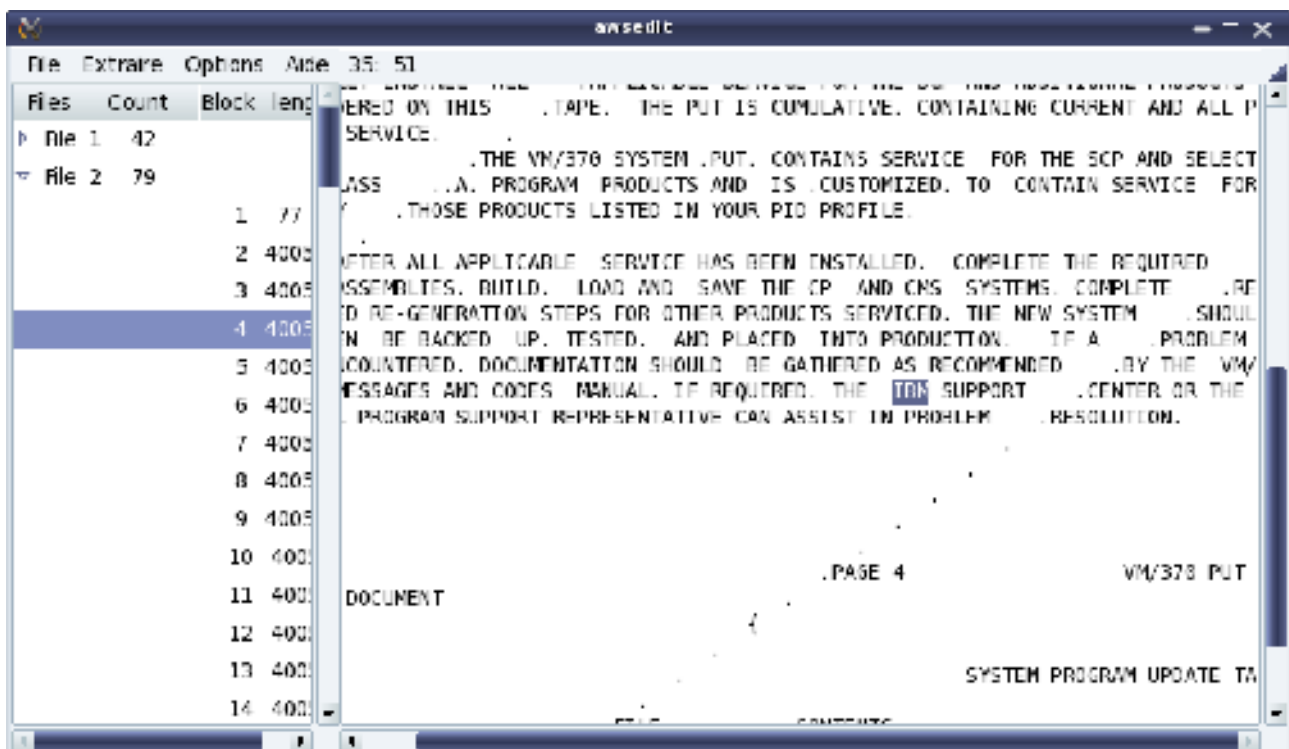
The string you search  
(no regular expressions)

check this box if your string  
is in hexadecimals

check this box for case sensitive

check this box to restart the search

If you search for string «IBM» or its equivalent hexadecimals «c9c2d4» in EBCDIC, in either case you will get:



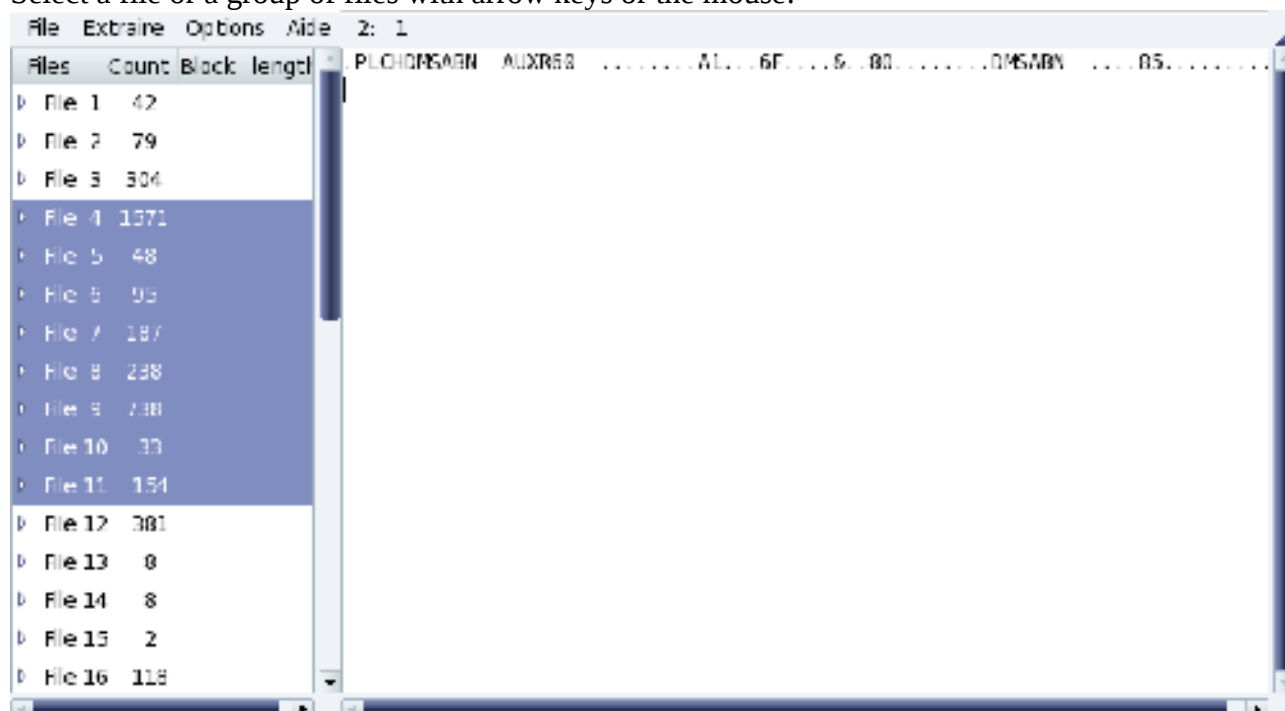
or the following:



Result of the search when both the index and hexadecimal boxes are checked in the settings dialog box.

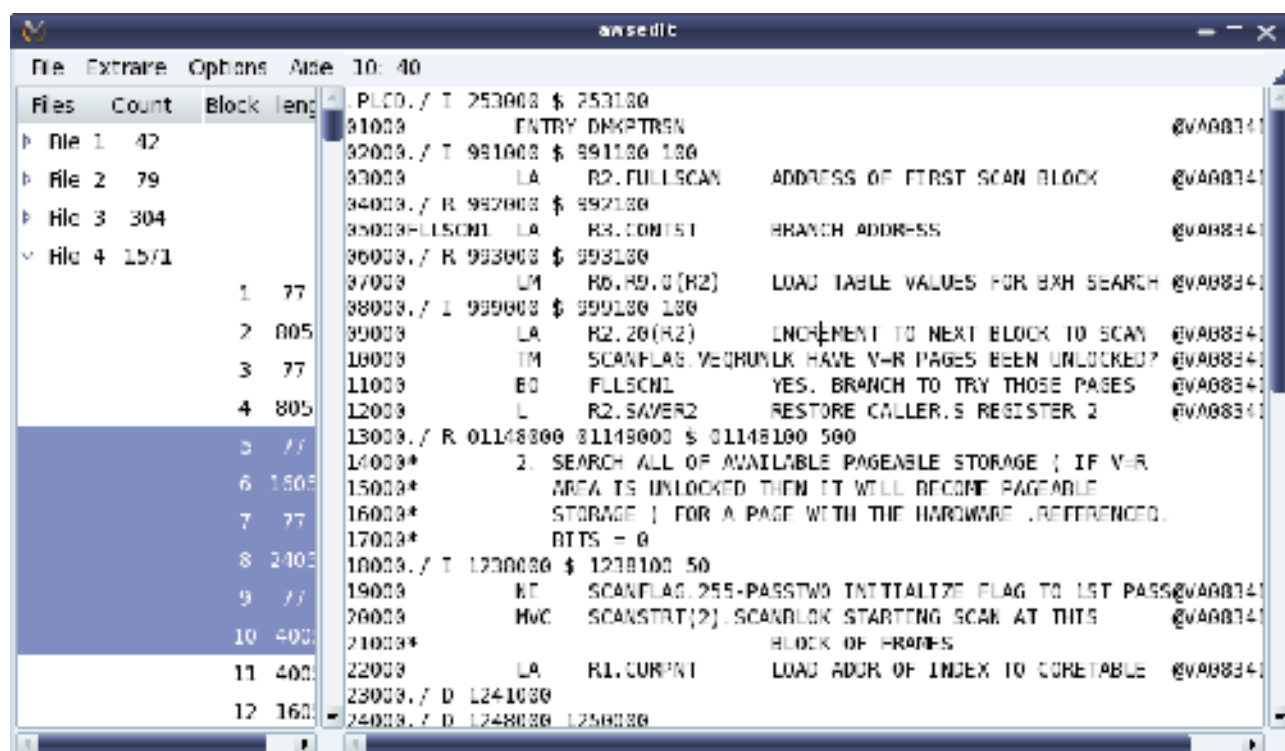
### Extracting data.

Select a file or a group of files with arrow keys or the mouse:



When you are at File level, only the first block of the selected file is displayed. To view the entire file you must expand it.

or a block or group of blocks:



Then activate menu: **Extraire (Extract)** → **Enregistrer (record)**

The following dialog box is displayed.



While not recommended, before recording, It is possible to modify the sequence of the selected files or blocks.

#### Warning:

Records of DOS files end with two bytes (x'OD' x'OA') while those of UNIX files end with only one byte (x'OA').

## Very Important!

The Awsedit's paradigm is «**what you see is what you get**». This means that in both cases, either in EBCDIC or ASCII, you will never get raw data: What is displayed is what is recorded !

Nevertheless, and only in case when EBCDIC option is set, it is possible to select some fields to be translated from raw to ASCII while data is extracted. These fields must be either in packed decimal format or zoned decimal format. And this is allowed only for data files that contain sequential fixed length blocked records.

As an example, let's display the content of a data file on tape that contains sequential fixed blocked records with a fields in zoned decimal format and others in packed decimal format.

☐ index   
 ☒ decimal   
 ☐ hexa   
 ☐ hex data

Record length

File	Extraine	Options	Aide	File 3
Files	Count	Block	length	
File 1	106			074891274 MT3.....1121336153.....N...1.....CHD121
File 2	22			005810486 DND.....1131853010.....?.....N...1.....CHD183
File 3	11			067750457 MN3.....1111119101.*.....?.....N...1.....CHD098
		1	5000	085840585 MN3.....11318532A11.....N...1.....CHD188
		2	5000	075810776 MN3.....1221428K04.*.....^.....N...1.....CHD085
		3	5000	083810883 C 1.....1210928K01.*.....?.....F...1.....170501
		4	5000	070190270 MN3.....1211849102.*.....^.....N...1.....CHD056
		5	5000	005811086 MT2.....1231433010..... .....?F...1.....130501
		6	5000	078880378 MN3.....1210829K01.*.....?.....N...1.....200101
		7	5000	005701086 C 1.....1131812A11..... .....?.....F...1.....860201
		8	5000	
		9	5000	
		10	5000	
		11	5000	

File 3 is composed of blocks that are 5000 bytes length. Within them records are blocked by 10. Thus setting the record length to 500.

## Notice

In the right pane some fields are unreadable because they are in packed decimal format and therefore they don't correspond to graphical EBCDIC characters. So they are replaced by a dot.



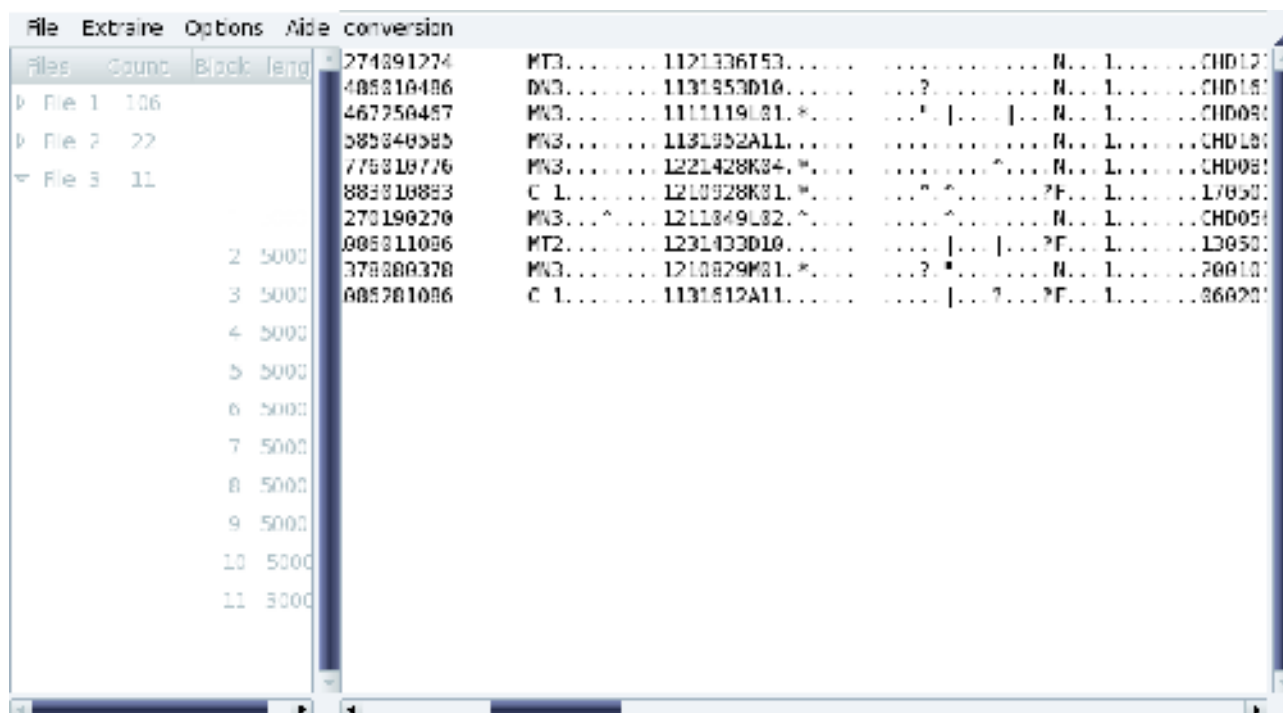
## Definitions

The zoned decimal format and the packed decimal format are used in COBOL to define numbers and correspond, by example, to **PIC S9(7)V99** for zoned decimal and to **PIC S9(7)V99 comp-3** for packed decimal. To understand decimal numbers refer to IBM documentation:

**Enterprise System Architecture/ 390 Principles of Operation** (Chapter 8. Decimal Instructions).

## Selecting fields

Before selecting fields to translate you have to choose a block within a file then enter Conversion mode by going to menu: **Extraire (extract) → Conversion**. **Result: the left pane will be frozen.**



Once in the conversion mode, if you press the right button of the mouse a popup menu appears.

The popup menu contains four entries:

1. **Packed decimal**
2. **Zoned decimal**
3. **Suppress field**
4. **Annul**

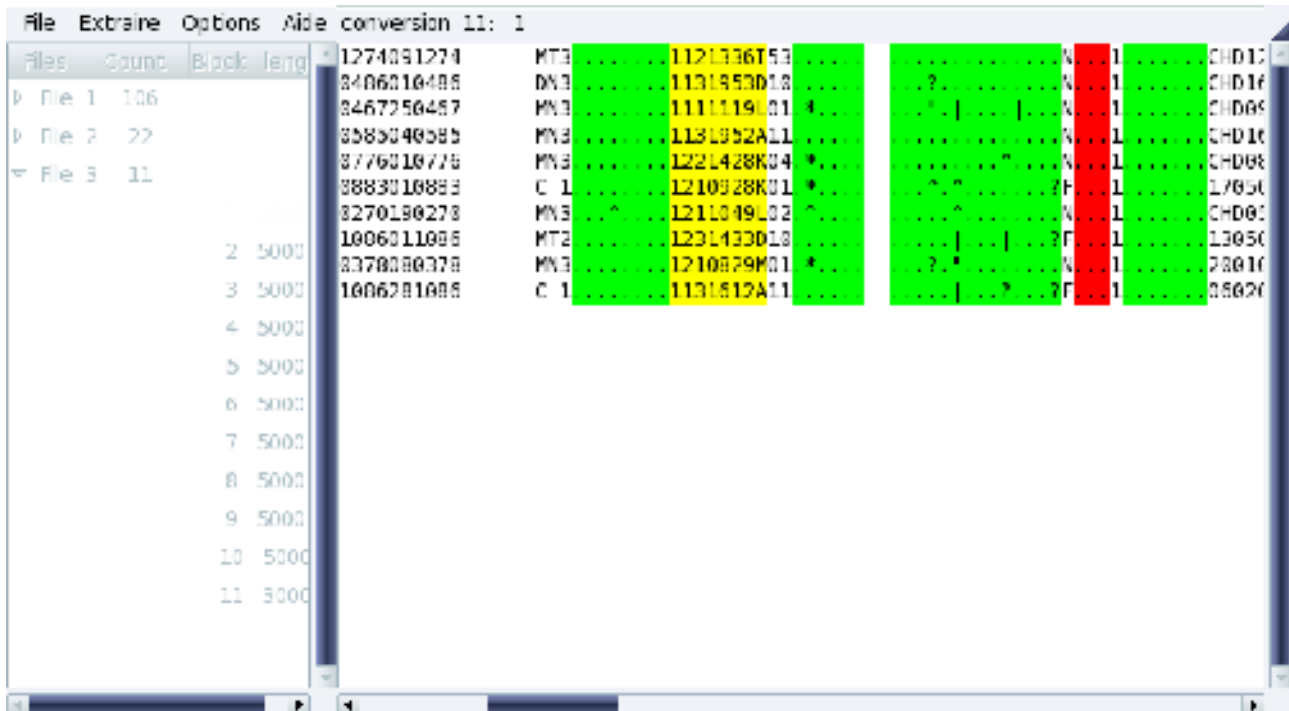
## About the popup menu.

If you have not already highlighted a field all the entries in the popup menu are grayed. But once you highlight a field and press the right button of the mouse, the first three entries become visible.

The **Annul** entry will be visible after you have selected at least one field. It lets you remove the last selected one.

The **Suppress field** entry lets you select fields to be bypassed when data is extracted.

Lets select some fields:



The packed fields are in **green**, the Zoned field is in **yellow** and the suppress field is in **red**.

To be fast, you can gather several contiguous numbers that are either zoned or packed in the same field.

Before extracting data you must choose how the Zoned and Packed fields will be converted. So go to menu : **Extraire (Extract) → Type ->**

1. **TRAILING SEPARATE**

2. **IBM MScobol**

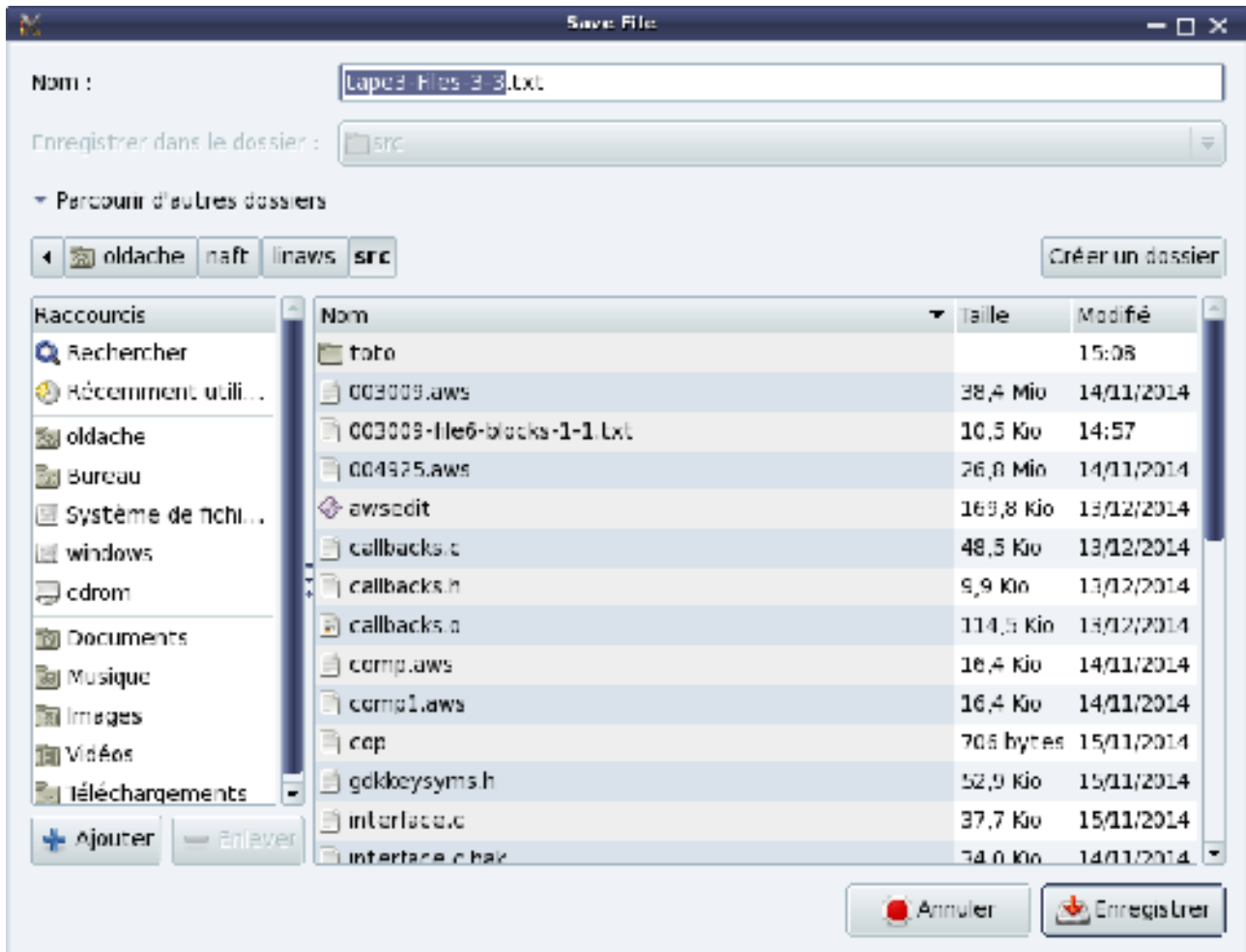
**IBM MScobol** is the default. **TRAILING SEPARATE** is an alternate format.

TRAILING SEPARATE is accepted by most COBOL compilers like MicroFocus and NetCobol.

IBM MScobol is not an official format name. I call it this way because it is what people have obtained when they migrated from Mainframe to PC.

To extract data go to menu **Extract → record(Enregistrer)**





As you see, Awsedit suggests you a name. This is helpful if you are extracting files after files, or blocks after blocks, and you want some names meaningful.

The extraction produces a file like this :

```

74091274 M 300100100{00{112143615369{000900 090900021090013300419N1009000{0900{CH112111
85019485 DN300100100{00{1131953D1018{000900 09109601809001910103N1009000{0900{CHD163FE
67259467 MN300100800{00{111111918105F000900 012097024090012490132N1009000{0900{CHD0985G
85019585 MN300300200{00{1131952A1120{000900 090900010090019201103N1009000{0900{CHD163FR
75019775 MN300{00200{00{1221428K0406E000900 092090020090015290132N1009000{0900{CHD0835G
83019883 C 100{00{00{00{1210528K0106E000900 091095035090009200136F1009000{0900{17050106
79199279 MN300100500{00{1211049L02055000900 090900025090012190132N1009000{0900{CHD0525G
85011085 MT200{00{00{00{1231433D1018{000900 091091034090014301036F1009000{0900{13050120
79089379 MN300200200{00{1210829M0104E000900 091096017090010290132N1009000{0900{20910104
05201005 C 100{00{00{00{1131612A1120{000900 090900034090016101036F1009000{0900{06020105
85101185 MT200{00{00{00{1221228K0406E002904 096095098090013190132N1009000{0900{17050108
05101005 M 200{00{00{00{1131842A1120{000900 090900039090019201133N1009000{0900{CH116311
79089379 MN200300600{00{1221319L0205E014908 091098013092013190135N1009000{0900{18010710
75211275 MN200100{00{00{1211279L02055000900 090900019090017290132N1009000{0900{CH11635G
77211077 MN200{00{00{00{1132052A1420{000900 095096016090020590385N213167900900{HE2052AC
67179967 MN300100800{00{1232643D08918: ***** *****096907020400185N21940900900{HFPY0
87159687 MT200{00{00{00{1221116I5309{000900 01209008090013190132N1009000{0900{17050108
88081083 D 100{00{00{00{1131425F0211{000900 012099034090015290069F1009000{0900{CHD0295G
75189675 MN300100400{00{1110539L0205E000900 093096019090011190132N1009000{0900{CHD0945G
88101283 C 100{00{00{00{1131633E061GE000900 09309409409001630128F1009000{0900{CHD179FI
89079189 MN200{00{00{00{112122613809{006901 092093094090012290132N1009000{0900{06020101
89189289 MT200{00{00{00{1131435H4911{000900 0960909409001439029011009000{0900{110123AC
09259209 Y 300100100{00{1110619M0104L000900 0909000360900096190132N1009000{0900{CHD1635G
89139389 C 100{00{00{00{1131522C1418E000900 090900036090016101133N1009000{0900{CHD162FR

```

## Some History.

I will not enter in details about this extracted file : It is the one that people have obtained when they transferred data files from Mainframe to PC by means of IBM PC3270 card or HP IRMA card that emulate 3270 terminals. Files in this format are accepted by MSCobol and MicroFocus.

Notice that MSCobol is the ancestor of MocoFocus.

## The other way.

Now lets try the second format. Go to menu : **Type → TRAILING SEPARATE**  
Then **Extract → record (Enregistrer)**

```
MT3901+001+000-990+11211369-11890-990+000+ 000+900+021+000-913+3-99489-V1000000+00000+CHD12
DN3901+001+000-990+11119534-19180-990+000+ 001+900+018+000-919+1-99189-V1000000+00000+CHD15
MN3901+000+000-990+11111193-91855-990+000+ 012+900+024+000-912+4-99192-V1000000+00000+CHD99
MN3901+002+000-990+111314521-11200-990+000+ 000+900+001+000-919+2-99193-V1000000+00000+CHD15
MN3901+002+000-990+112214282-94065-990+000+ 002+900+029+000-915+2-99192-V1000000+00000+CHD99
C 1900+000+000-990+112195282-91865-990+000+ 001+900+005+000-909+2-99186-V1000000+00000+CHD99
MN3901+000+000-990+112116493-92655-990+000+ 000+900+025+000-912+1-99192-V1000000+00000+CHD99
MT2900+000+000-990+12314334-19180-990+000+ 001+901+004+000-914+3-91086-F1000000+00000+13050
MN3902+002+000-990+12108294-91645-990+000+ 001+900+017+000-916+2-99192-V1000000+00000+20010
C 1000+000+000-990+11316121-11200-990+000+ 000+900+004+000-916+1-91086-F1000000+00000+06020
MT2900+000+000-990+12212282-94065-990+000+ 006+905+009+000-913+1-99192-V1000000+00000+17050
MT2900+000+000-990+11318421-11200-990+000+ 000+900+009+000-919+2-91193-V1000000+00000+CHD15
MN2900+000+000-990+12213193-92655-914+000+ 001+908+013+000-913+1-99185-V1000000+00000+18010
MN2901+000+000-990+12112293-92655-990+000+ 000+900+019+000-912+2-99192-V1000000+00000+CHD15
MN2900+000+000-990+11320521-14200-990+000+ 005+900+010+000-920+5-99385-V21316700+00000+HEZ00
MN3901+000+000-990+12320434-99180-*****
*****005+000-920+4-99385-V21040000+00000+HEY00
MT2900+000+000-990+12211169-53090-990+000+ 012+900+006+000-913+1-99192-V1000000+00000+17050
D 1000+000+000-990+11314258-52110-990+000+ 012+900+004+000-915+3-99089-F1000000+00000+CHD92
MN3901+004+000-990+11199393-92655-990+000+ 001+900+019+000-911+1-99192-V1000000+00000+CHD99
C 1000+000+000-990+11316335-95165-990+000+ 003+904+004+000-916+3-91288-V1000000+00000+CHD17
MN2901+000+000-990+11217269-93090-990+000+ 000+900+003+000-912+2-99189-V1000000+00000+06020
M 2900+000+000-990+11314358-44110-990+000+ 005+900+004+000-914+3-99280-V1000000+00000+11010
V 3901+001+000-990+11106194-91645-990+000+ 000+900+005+000-906+1-99192-V1000000+00000+CHD15
C 1000+000+000-990+11315223-14185-990+000+ 000+900+005+000-916+1-91193-V1000000+00000+CHD15
```

Stars are printed in place of wrong numbers.

## Notice.

The TRAILING SEPARATE is more explicite : the signe appears in clear at the right of a number.

## Last but not least.

Selecting fields to be translated may be fastidious and repetitive. Fortunatly this can be done only once a time for a kind of file because it is possible to save the description of the selected fields to a configuration file to be reloaded later.

While in Conversion mode, save the description: **Extract → Description → Save**

To quit the Conversion mode go to menu : **Extract → Conversion**

Later, reload the description : **Extract → Description → Load**