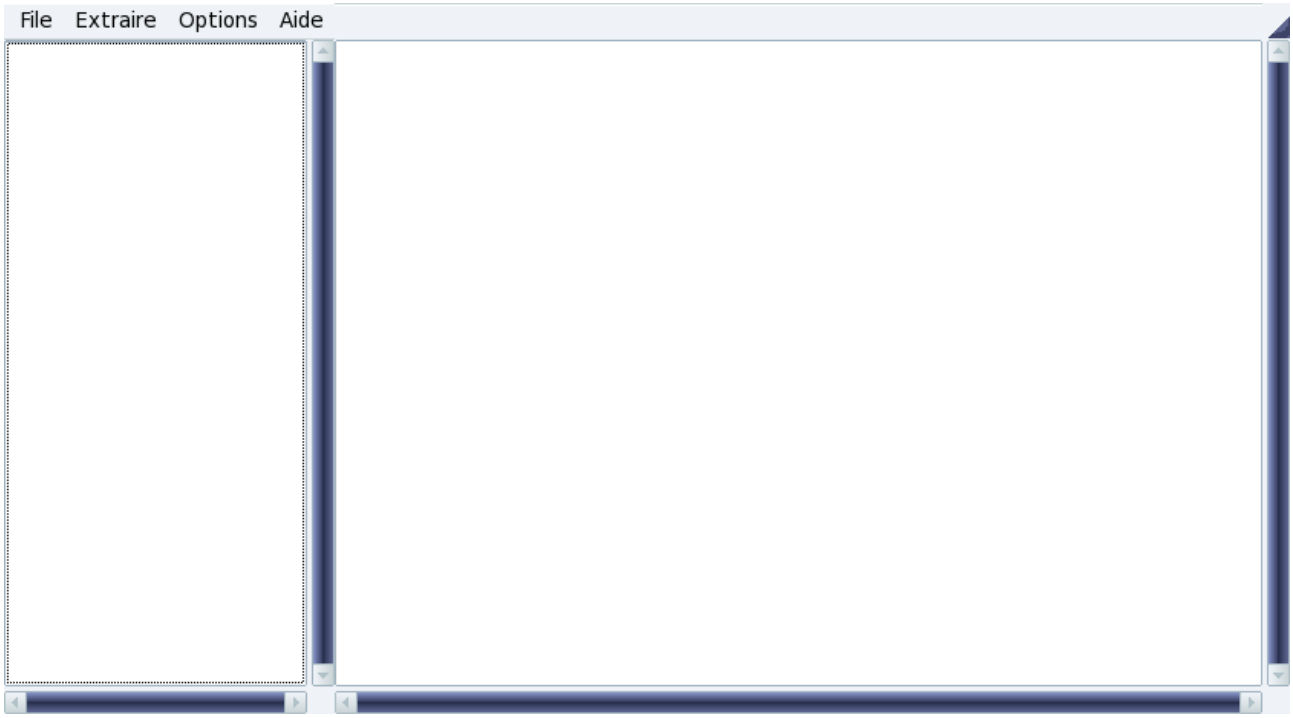
AWSEDIT Utility by Mustapha Oldache

Follow the instructions in the INSTALL file to compile and install awsedit.
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

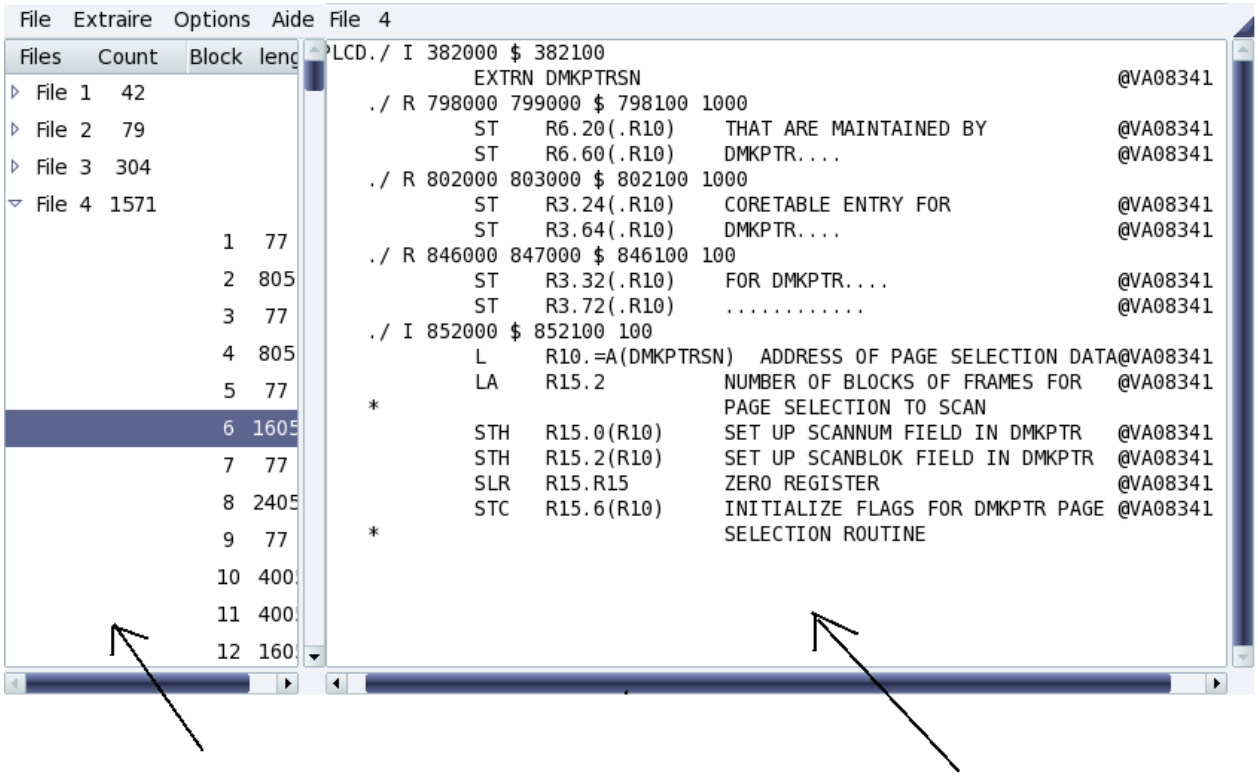
Aide (help) Some useful informations.

Warning :

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

Running Awsedit :

Awsedit accepts only one argument: the AWS file name.
At the prompt,type:
$awsedit ptf-616.aws # ptf-616.aws is in tapes diectory
This leads you to:

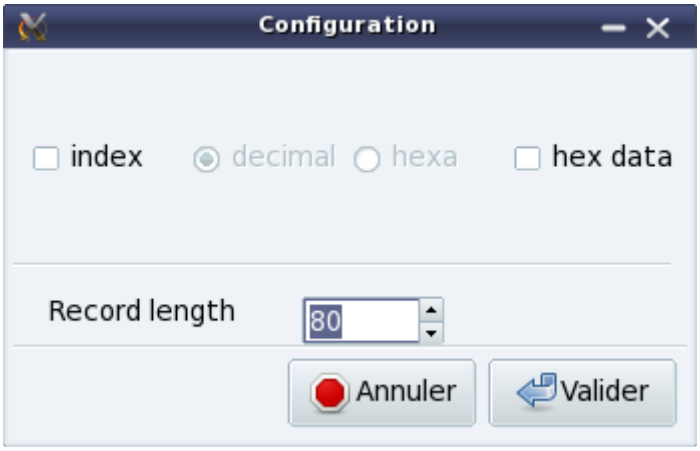


This pane lists files and blocks within them.

This pane displays content of a block

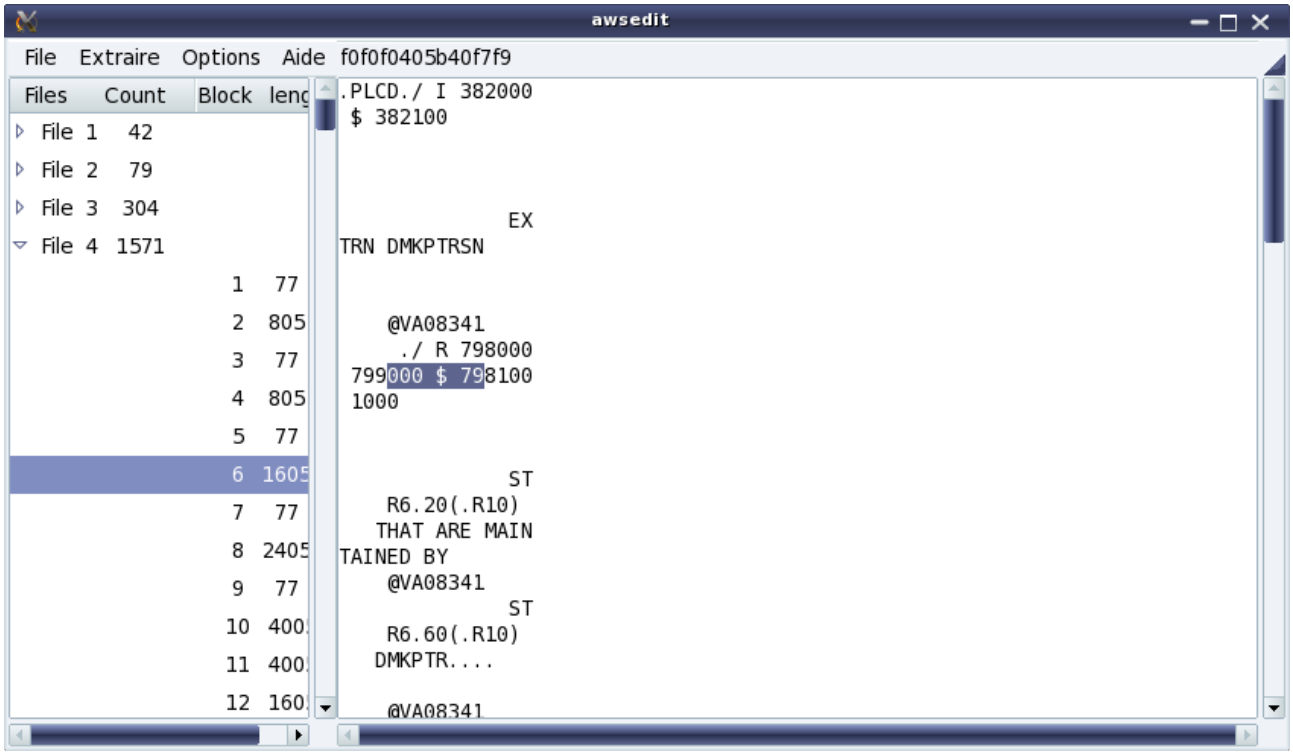
In general, blocks contain logical records with a fixed or vaiable length. In case of source or executable programs, records are usualy 80 bytes length. Thus in awsedit the default record length is set to 80. To modify or adjust it do: **File → Settings**

This will displays



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

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 their corresponding hexadecimals by highlighting a field then pressing the right button of the mouse.The hexadecimals are displayed on the status bar above.

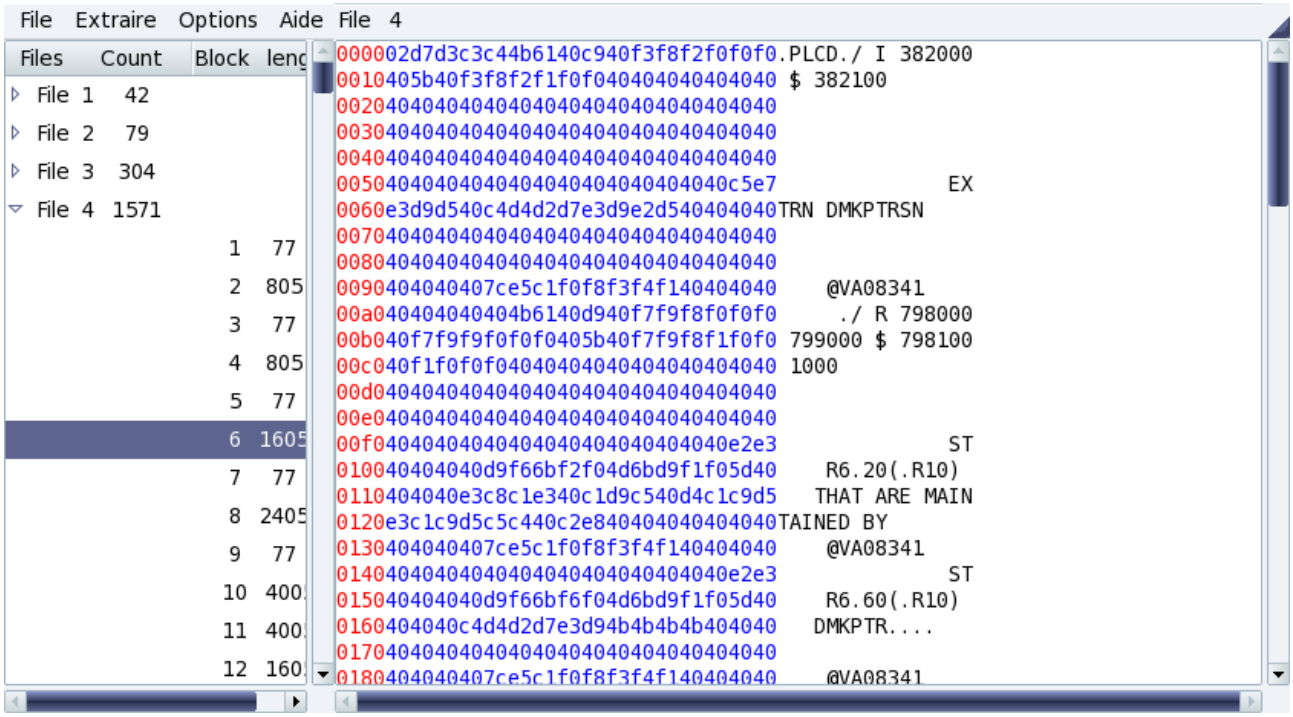
The width of the right pane.

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

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:

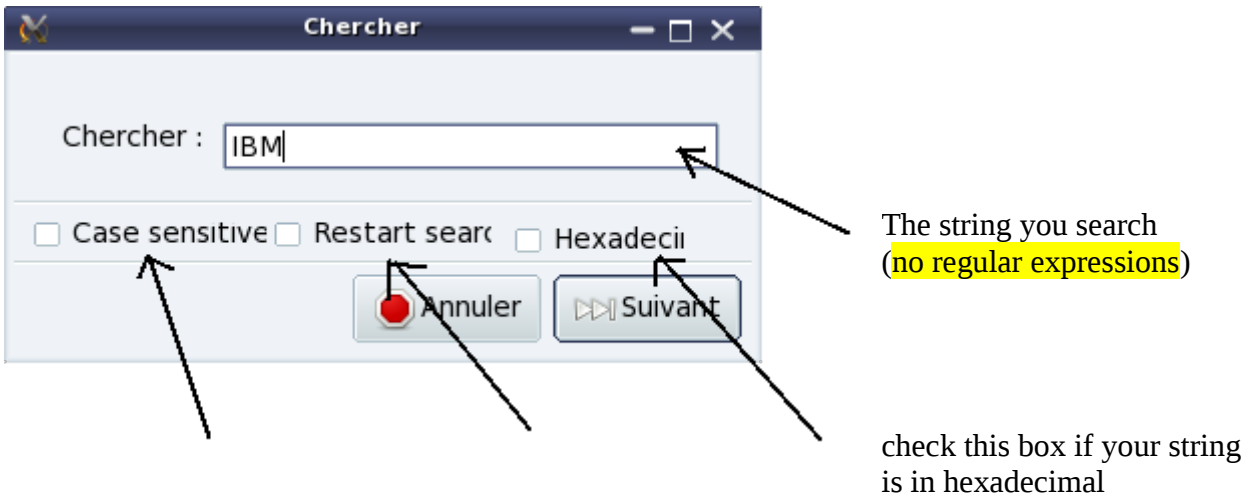


The index is colored in red and the hexadecimal arrays are colored in blue.

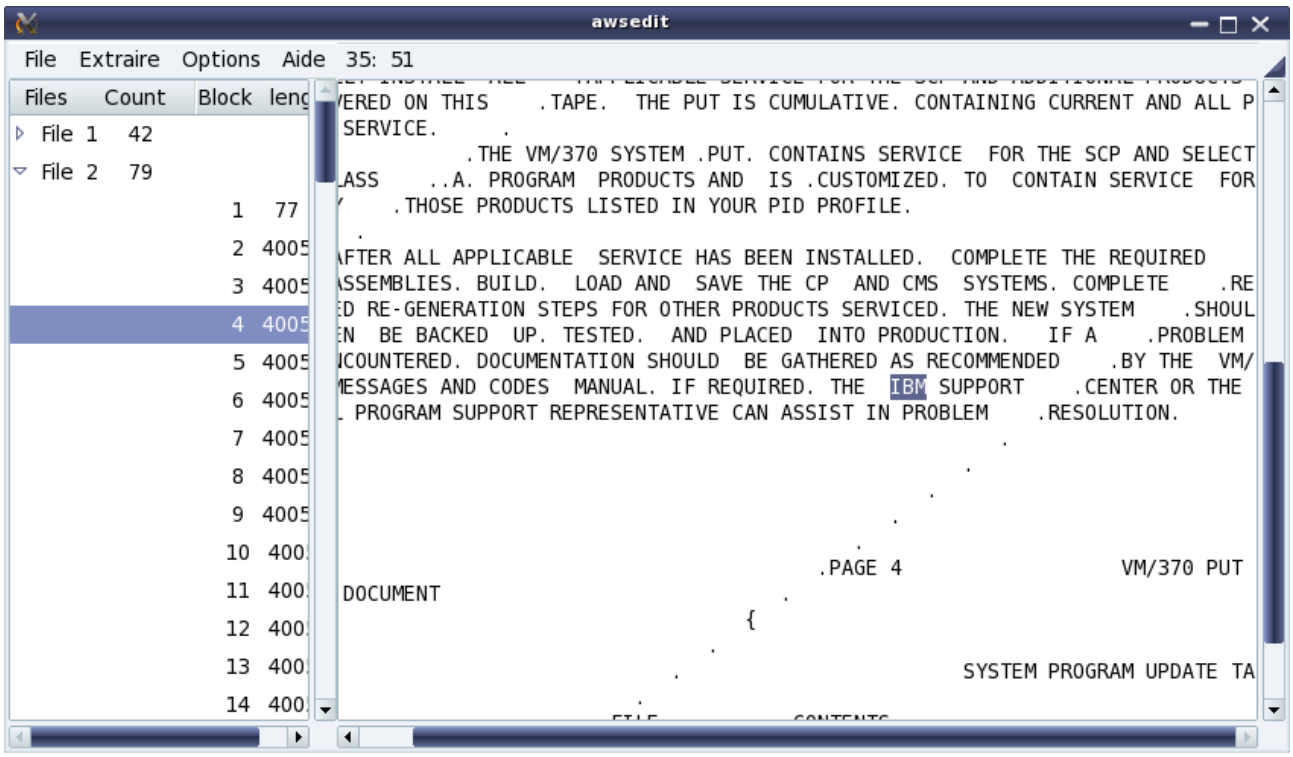
In both cases, even with the index and (or) hexadecimal arrays, you can do a search:

File → Rechercher(Find) or Ctrl-F

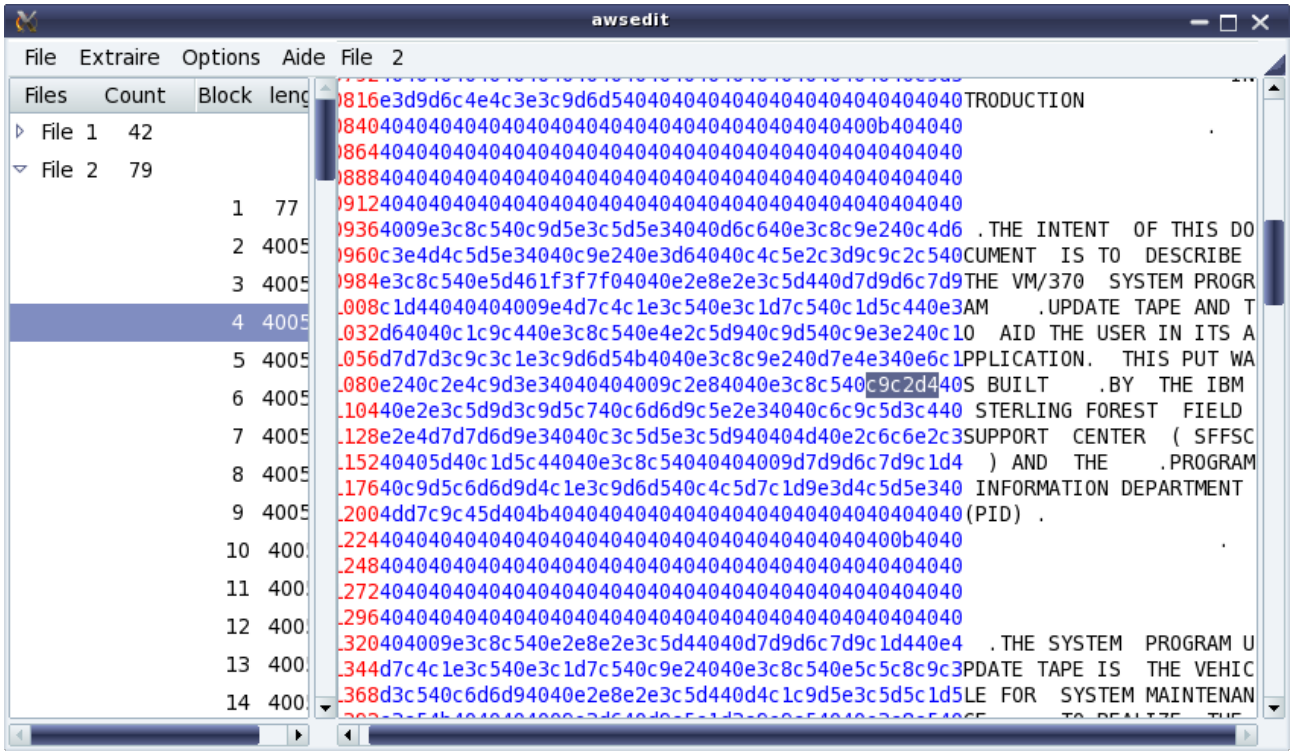
The following dialog box will be displayed:



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



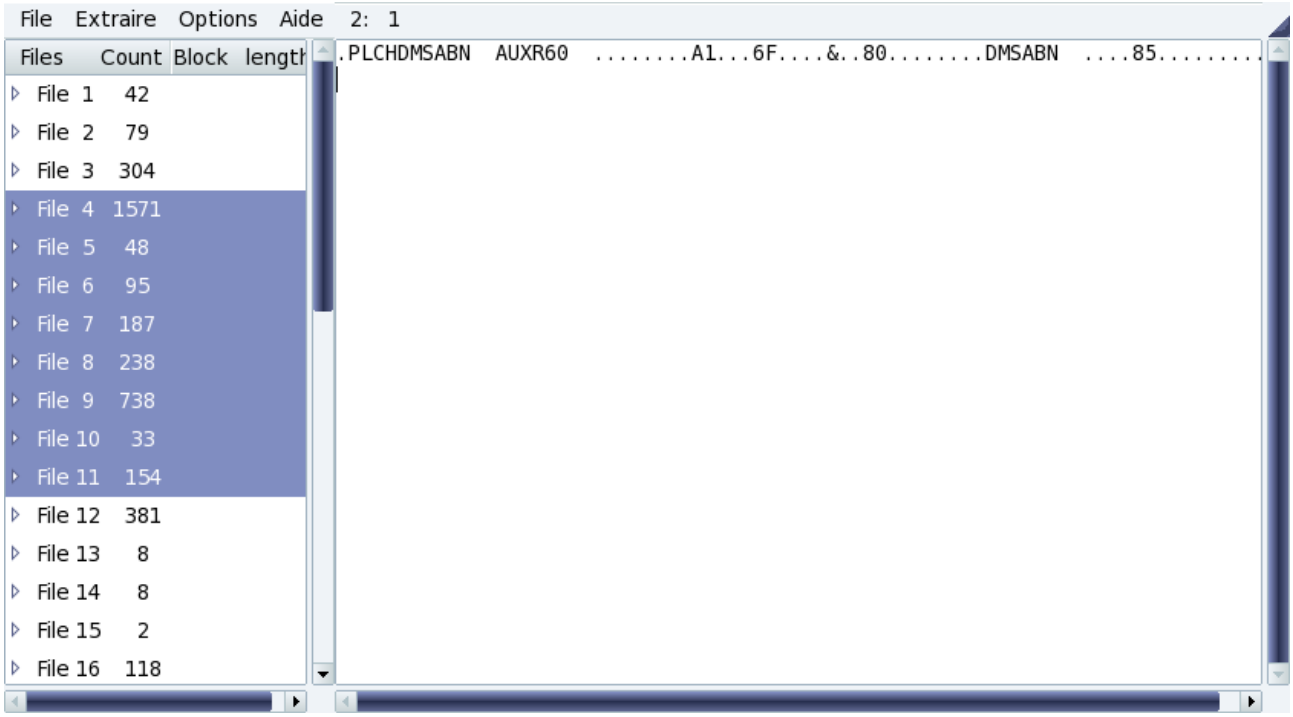
or the following:



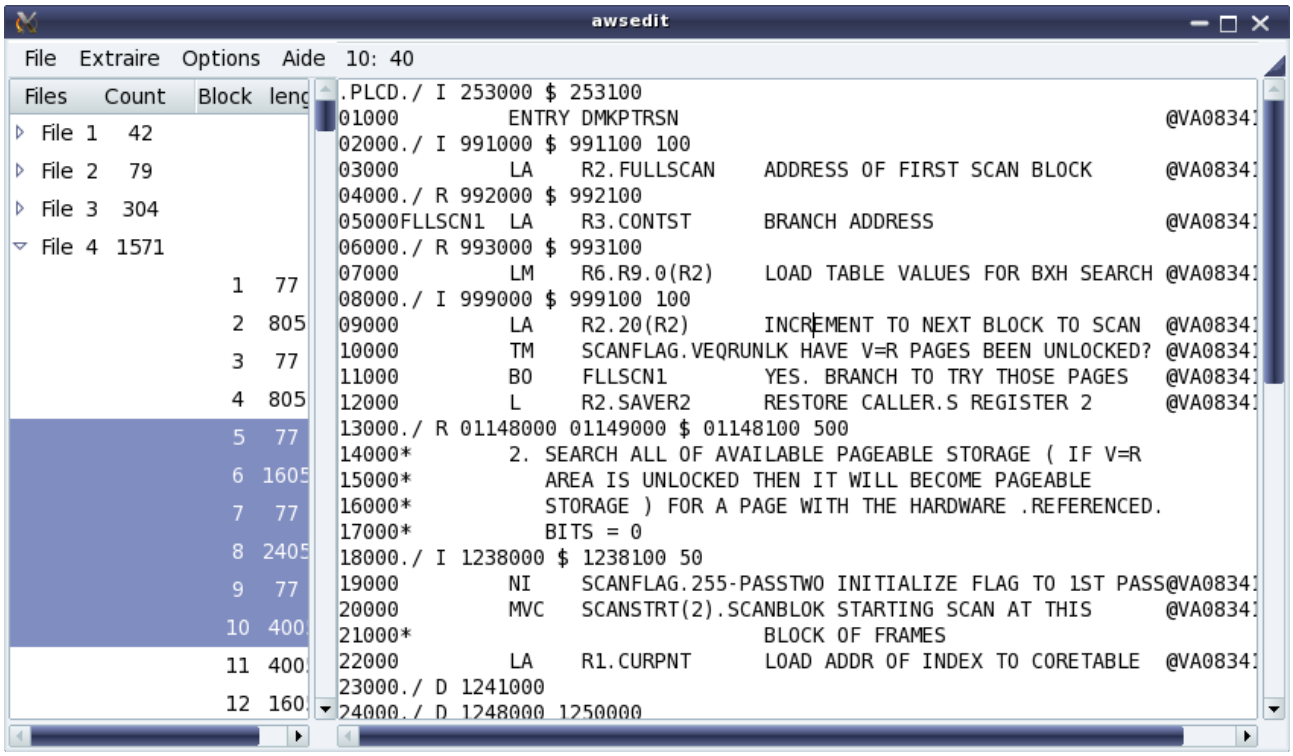
Result of the search when both the index and hexadecimal boxes are checked in the settings dialog box.

Extracting data.

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



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.

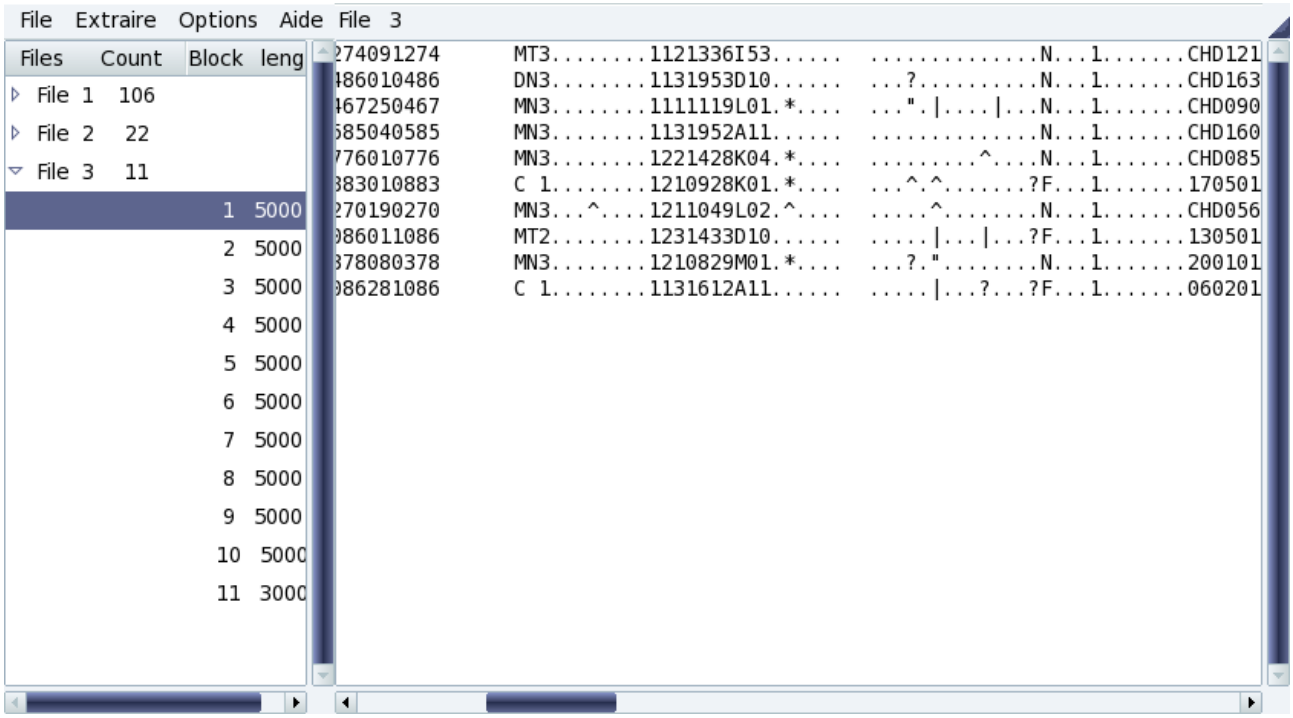
Warning:
Records of DOS files end with two bytes (x'OD' x'OA') while those of UNIX files end with only one byte (x'OA').

Very Important!

The paradigm of awsedit 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 where 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 fomat or zoned decimal format. And this is allowed only for data files that contain sequential fixed length blocked records.

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



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.

Warning

Some people may be disappointed by the fact that Awsedit don't let them extract raw data.Thus they must know that Awsedit is a migration tool, not a complement to IBM utilities.

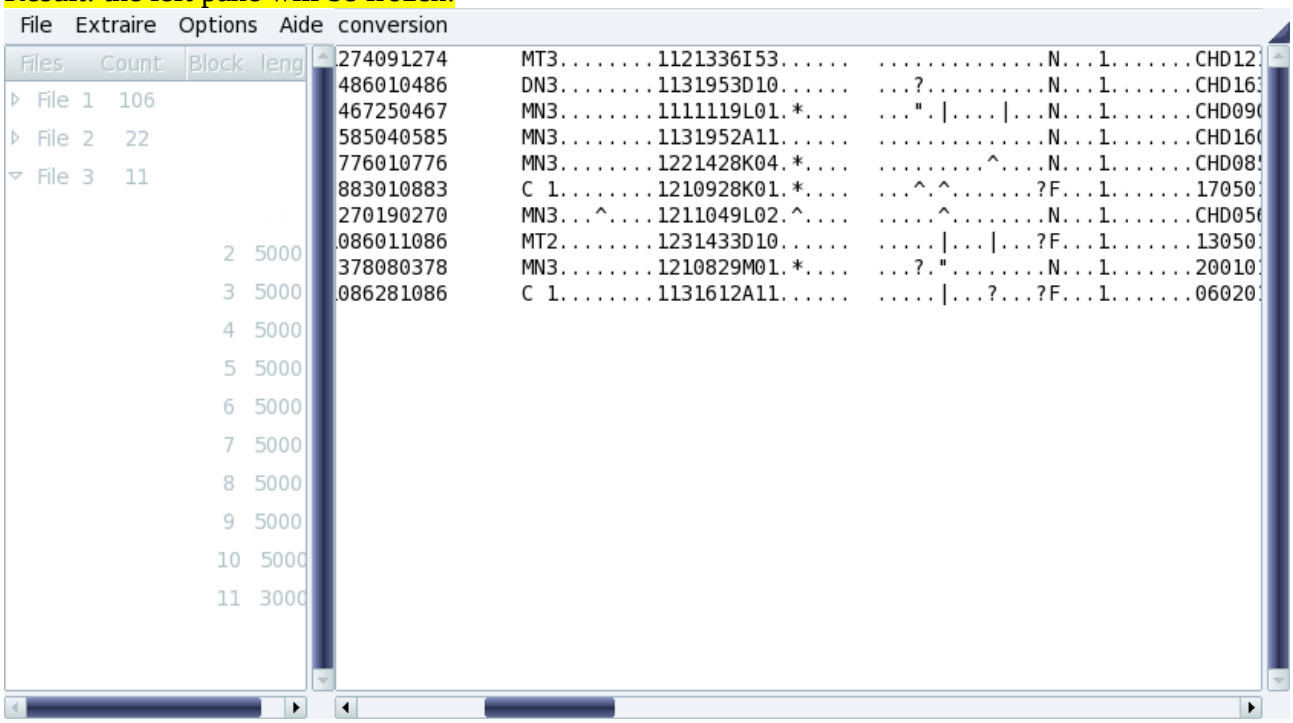
Definition

The zoned format and the packed format are commonly used in COBOL language to define decimal numbers and correspond to something like «PIC S9(7)» for zoned and «PIC S9(7) comp-3» for packed. To understand that, refer to IBM documentation: «IBM Entreprise 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.



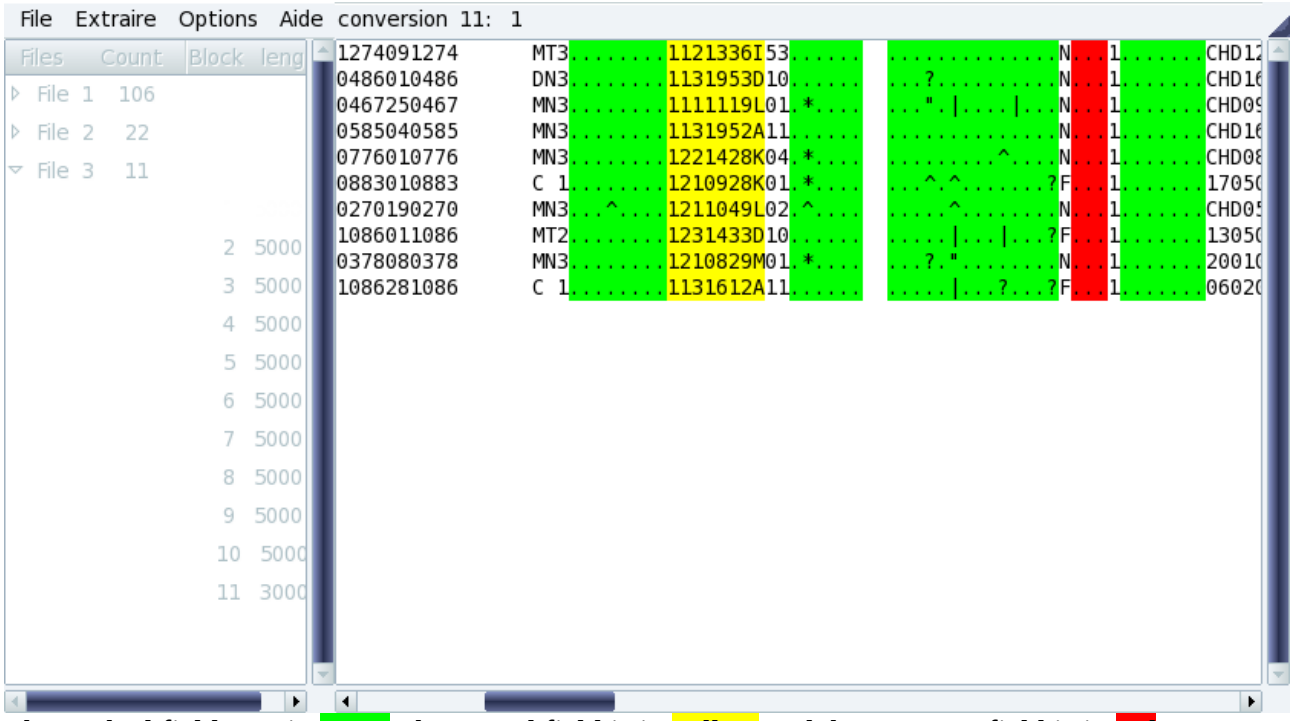
Once in the conversion mode, if you press the right button of the mouse a popup menu appears.
The small popup menu contains four entries:

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

The small 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 of the popup menu become visible.
The «Annul» entry will be visble 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.

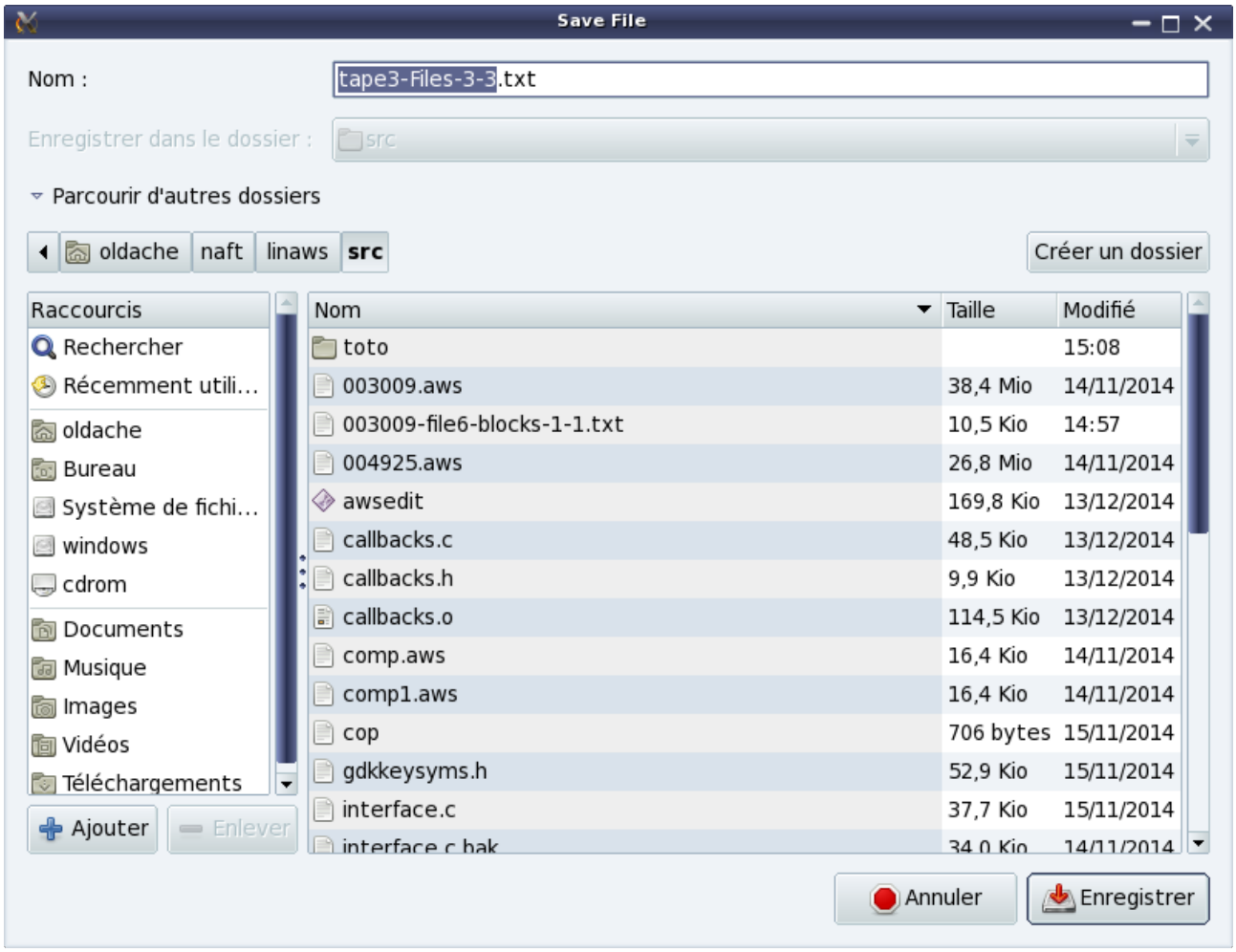
To be fast you may gather several contiguous numbers that are either zoned or packed in the same field.

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.
The TRAILING SEPARATE exists in most COBOL compilers like MicroFocus and NetCobol.

IBM MScobol is not an official format name. I call it this way because it is the format which people have obtained when they migrated from Mainframe to PC.
To extract data go to menu **Extract → record(Enregistrer)**



As you see, Awsedit suggest you a name. This is helpful if you are extracting files after files, or blocks after blocks, and you want some names that could be meaningful.
After extracting data, you will get a file that looks like this :

```
74091274      MT300100100{00{1121336I5309{000000  00000002100001330O489N1000000{0000{CHD121TL
86010486      DN300100100{00{1131953D1018{000000  00100601800001910109 3N1000000{0000{CHD163FE
67250467      MN300100000{00{1111119L0105E000000  01200702400001240O192N1000000{0000{CHD090SG
85040585      MN300000200{00{1131952A1120{000000  00000001000001920I193N1000000{0000{CHD160FR
76010776      MN300{00200{00{1221428K0406E000000  00200002000001520O192N1000000{0000{CHD085SG
83010883      C 100{00{00{00{1210928K0106E000000  00100500500000920O186F1000000{0000{17050106
70190270      MN300100500{00{1211049L02055000000  00000002500001210O192N1000000{0000{CHD056SG
86011086      MT200{00{00{00{1231433D1018{000000  00100100400001430I086F1000000{0000{13050120
78080378      MN300200200{00{1210829M0104E000000  00100601700001020O192N1000000{0000{20010104
86281086      C 100{00{00{00{1131612A1120{000000  00000000400001610I086F1000000{0000{06020105
86101186      MT200{00{00{00{1221228K0406E002004  00600500800001310O192N1000000{0000{17050108
86181086      MT200{00{00{00{1131842A1120{000000  00000000900001920I193N1000000{0000{CHD160FR
79030379      MN200000000{00{1221319L0205E014008  00100801300201310O185N1000000{0000{18010710
76271276      MN200100{00{00{1211229L02055000000  00000001900001220O192N1000000{0000{CHD168SG
77241077      MN200{00{00{00{1132052A1420{000000  00500001600002050O385N213167000000{HEZ050ACI
67130967      MN300100000{00{1232043D0918{******** ********00600502040O385N210408000000{HEY0
87150687      MT200{00{00{00{1221116I5309{000000  01200000800001310O192N1000000{0000{17050108
88081088      D 100{00{00{00{1131425H6211{000000  01200900400001530O689F1000000{0000{CHD020SG
76180676      MN300100400{00{1110939L0205E000000  00300601900001110O192N1000000{0000{CHD094SG
88101288      C 100{00{00{00{1131633E0616E000000  00300400400001630I288F1000000{0000{CHD170FI
89070189      MN200{00{00{00{1121226I3809{006001 00020030040000122O0189F1000000{0000{06020101
89180289      MT200{00{00{00{1131435H4911{000000  00600000400001430O2801I000000{0000{110123ACI
89250289      V 300100100{00{1110619M0104E000000 00000000060000061O0192N1000000{0000{CHD163SG
89130389      C 100{00{00{00{1131522C1418E000000  00000000600001610I193N1000000{0000{CHD162FR
```

Some History.

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

The other way.

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

```
MT3001+001+000+000+11213369+53090+000+000+  000+000+021+000+013+3+00489+N10000000+00000+CHD12
DN3001+001+000+000+11319534+10180+000+000+  001+006+018+000+019+1+01093+N10000000+00000+CHD16
MN3001+000+000+000+11111193-01055+000+000+  012+007+024+000+012+4+00192+N10000000+00000+CHD09
MN3000+002+000+000+11319521+11200+000+000+  000+000+010+000+019+2+01193+N10000000+00000+CHD16
MN3000+002+000+000+12214282-04065+000+000+  002+000+020+000+015+2+00192+N10000000+00000+CHD08
C 1000+000+000+000+12109282-01065+000+000+  001+005+005+000+009+2+00186+F10000000+00000+17050
MN3001+005+000+000+12110493-02055+000+000+  000+000+025+000+012+1+00192+N10000000+00000+CHD05
MT2000+000+000+000+12314334+10180+000+000+  001+001+004+000+014+3+01086+F10000000+00000+13050
MN3002+002+000+000+12108294-01045+000+000+  001+006+017+000+010+2+00192+N10000000+00000+20010
C 1000+000+000+000+11316121+11200+000+000+  000+000+004+000+016+1+01086+F10000000+00000+06020
MT2000+000+000+000+12212282-04065+002+004+  006+005+008+000+013+1+00192+N10000000+00000+17050
MT2000+000+000+000+11318421+11200+000+000+  000+000+009+000+019+2+01193+N10000000+00000+CHD16
MN2000+000+000+000+12213193-02055+014+008+  001+008+013+002+013+1+00185+N10000000+00000+18010
MN2001+000+000+000+12112293-02055+000+000+  000+000+019+000+012+2+00192+N10000000+00000+CHD16
MN2000+000+000+000+11320521+14200+000+000+  005+000+016+000+020+5+00385+N21316700+00000+HEZ05
MN3001+000+000+000+12320434+09180+********  ********006+005+020+4+00385+N21040800+00000+HEY05
MT2000+000+000+000+12211169+53090+000+000+  012+000+008+000+013+1+00192+N10000000+00000+17050
D 1000+000+000+000+11314258+62110+000+000+  012+009+004+000+015+3+00689+F10000000+00000+CHD02
MN3001+004+000+000+11109393-02055+000+000+  003+006+019+000+011+1+00192+N10000000+00000+CHD09
C 1000+000+000+000+11316335+06165+000+000+  003+004+004+000+016+3+01288+F10000000+00000+CHD17
MN2000+000+000+000+11212269+38090+006+001+ 0002+003+004+000+012+2+00189+F10000000+00000+06020
MT2000+000+000+000+11314358+49110+000+000+  006+000+004+000+014+3+00280+110000000+00000+11012
V 3001+001+000+000+11106194-01045+000+000+ 0000+000+006+000+006+1+00192+N10000000+00000+CHD16
C 1000+000+000+000+11315223+14185+000+000+  000+000+006+000+016+1+01193+N10000000+00000+CHD16
```

stars are printed in place of wrong numbers.

Notice.

The TRAILING SEPARATE is more explicite : the signe appears in clear and separates the numbers.

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 work 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**