

## I. Content

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on: February 20 <sup>th</sup> , 2014	on:
by: Ulrich Szagun	by:

## II. Convert data to ASCII

cs5bin2ascii is a program for creating text files of position- or amplitude-files (saved as binary data). The created files can then be viewed and edited with simple text editors or complex spreadsheet programs like excel. The conversion of the files is done non-destructive which means that for every source file a new text file with the same name but a ".txt"-file extension is created ("0001.txt" for "0001.pos"). The original data remain untouched.

### Using cs5bin2ascii

#### 1. Choosing directories

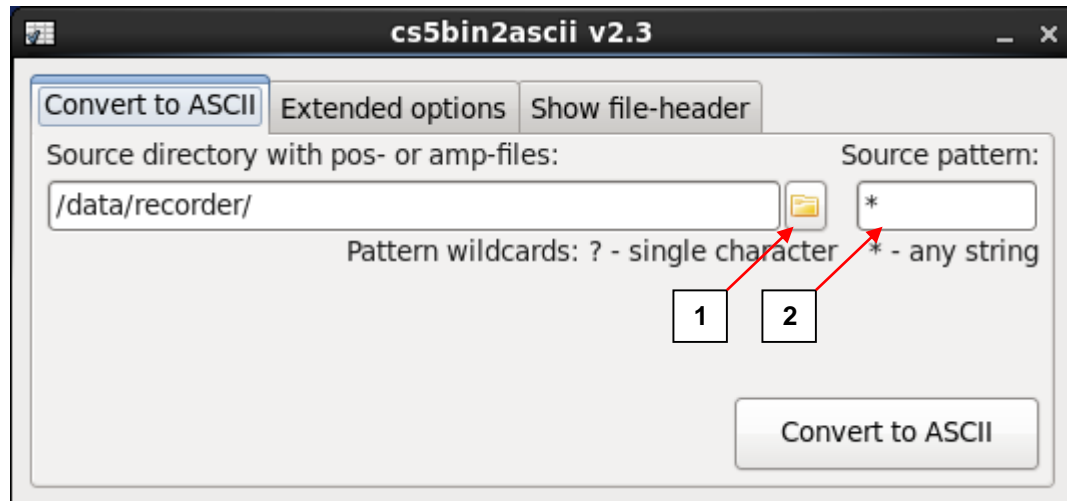


Figure 1: Choosing directory and source pattern

The source directory is the folder containing the binary data files that need to be converted to ASCII. The starting directory is /data/recorder. You can choose the folder containing your binary data (amplitude- (amp-files) or position-files (pos-files)) via a directory dialog (Figure 1 (1)). The program detects how many amp- or pos-files are in the chosen directory (Figure 2 (1)) and it will warn you if neither file-type is found.

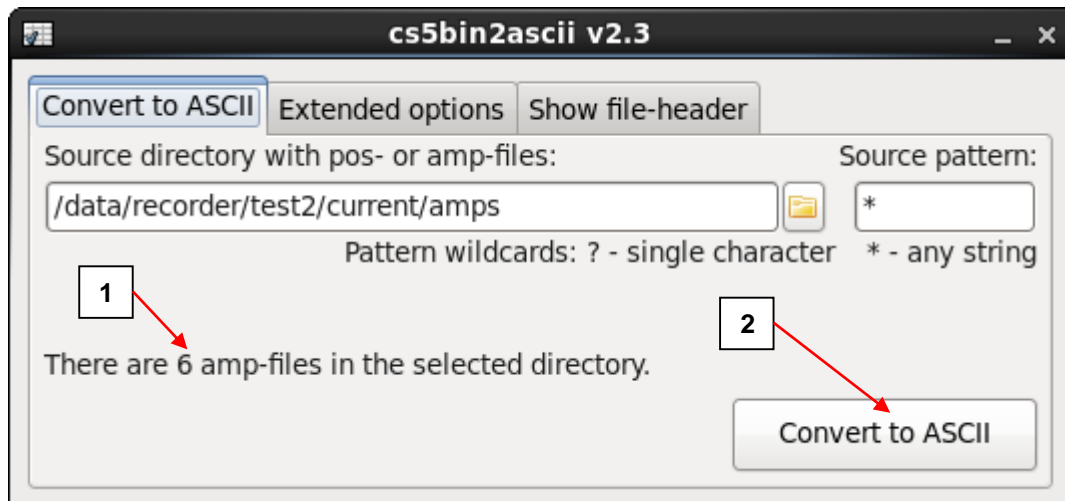
#### 2. Choosing a source pattern

The source pattern (Figure 1 (2)) defines the pattern of the file names that need to be converted to ASCII omitting the file extension ("pos" or "amp"). By default the asterisk (\*), which is a wildcard for an arbitrary string, is selected. This means that for every pos-file (respectively amp-file) in the chosen directory a file containing the equivalent ASCII-data will be created.

You can change the source pattern to refine the files for which ASCII-data need to be created. As mentioned, the asterisk (\*) stands for an arbitrary string in the file name so the source pattern "a\*" will mark any file starting with an "a" for conversion.

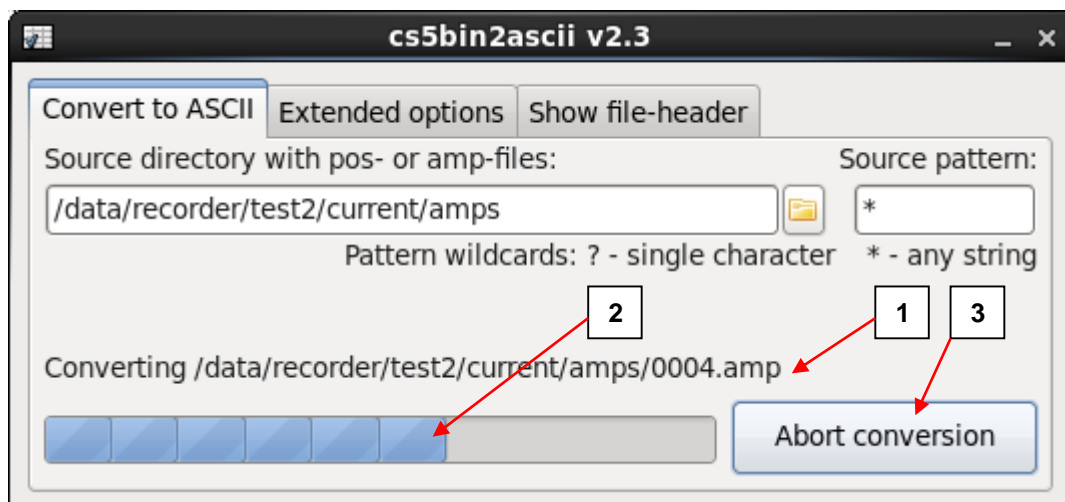
The question mark (?) is the wildcard for exactly one character. So if for instance the pos-files in your source directory are named "0001.pos" to "0123.pos" the source pattern "002?" will mark the files "0020.pos" to "0029.pos" for conversion.

### 3. Converting to ASCII



**Figure 2: Executing the conversion**

To start the file conversion simply click the “Convert to ASCII”-button (Figure 2 (2)). For each pos- respectively amp-file in the source directory matching the source pattern a text file containing the equivalent data in ASCII-format will be created. The text file has the same name as the source file, just the file-extension differs (“txt” instead of “pos” or “amp”).



**Figure 3: Processing status during conversion**

During conversion the file being processed (Figure 3 (1)) and a progress bar (Figure 3 (2)) indicating the overall progress are displayed. You can abort the conversion by clicking the “Abort conversion”-button (Figure 3 (3)).

#### 4. Extended options

The extended options tab-page allows you to specify your conversion preferences. Once configured, the preferences are stored under "settings.xml" in the configuration directory of the application. At startup the program will always start with the settings of the last session.

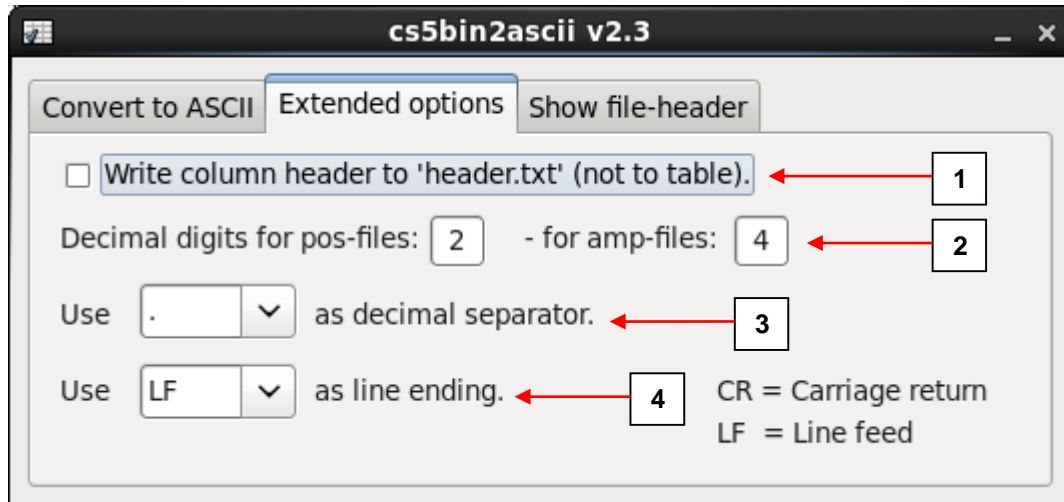


Figure 4: The extended options tab-page

##### Header

The "Write column header to 'header.txt'" -option (Figure 4 (1)) determines whether the names of the data-columns are included in the created text file(s). When this option is checked the column-names are NOT included in the resulting ASCII-files but a separate file ('header.txt') containing the column-names will be created in the same directory. By default the column-names are included in the created files.

##### Decimal digits

The "Decimal digits" -option (Figure 4 (2)) allows you to specify the number of decimal (fractional) digits included in the created ASCII-data files for each source file-type. Per default two digits for pos-files and four digits for amp-files are selected.

##### Decimal separator

The "Decimal separator" (Figure 4 (3)) defines the decimal separator (point('.') or comma(',')). The default-separator is a point('.').

##### Line ending

The "Line ending" -option (Figure 4 (4)) specifies the control characters used as a line break in the created ASCII-files. This can be of importance depending on the computer system you wish to use for editing/viewing the created text files. The default line ending is set to 'LF' (line feed – compatible with most non-windows-systems) whereas for further processing on windows-system you would want to use the 'CRLF' (carriage return, line feed) option.

## 5. Show file-header

Since pos-, amp- and agd-files include a file-header-section containing file-version, number of channels, sampling frequency etc. in plain text and a data-section with binary data, it is inconvenient to open these files with a normal text editor to display the file-header-section.

The show file-header tab enables you to display and save the file-headers of these files:

Choose a file via the file-selector (Figure 5 (1)) and the header is displayed in a dialog box (Figure 6 (1)). Here you have the opportunity to save the file-header-text to a file (Figure 6 (2)) or to copy the text to the clipboard (Figure 6 (3)).

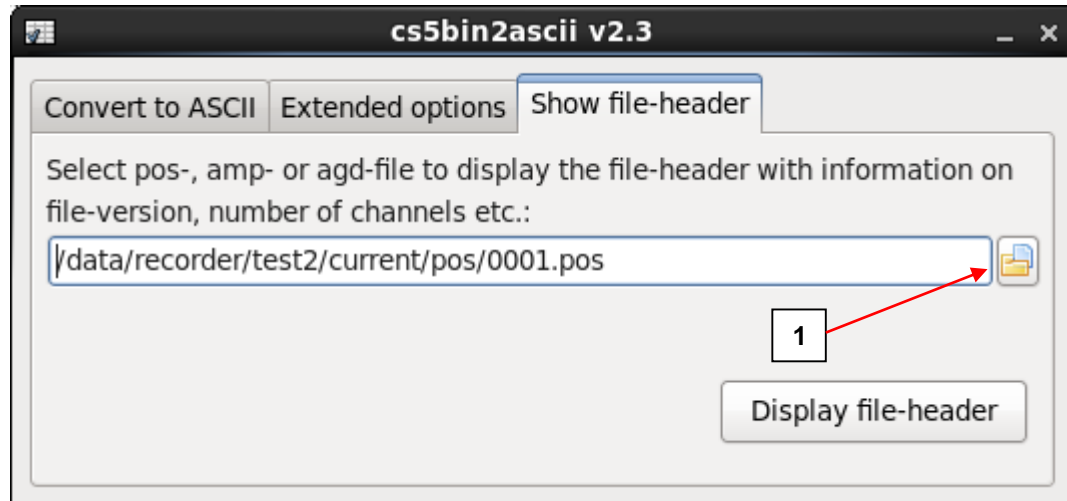


Figure 5: The Show file-header tab-page

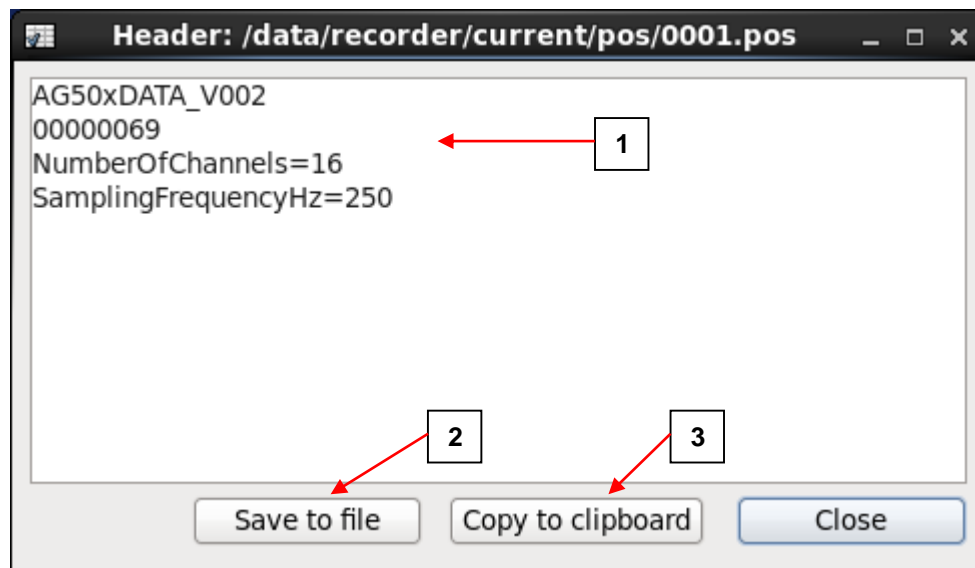


Figure 6: Dialog-box with file-header text

## III. Revision history - bin2acii

Date	Revision	Annotation
February 20 <sup>th</sup> , 2014	1	Ulrich Szagun