Conversion Tool User's Manual

March 4, 2024

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CHAPTER 1 BESPICE WAVE CONVERSION TOOL

BeSpice Wave is a waveform viewer enhanced and specialized for visualizing and analyzing Spice simulation results. Many different file formats are supported.

The BeSpice Wave Conversion Tool allows to convert all supported waveform formats to files of a different format. The converted files can be used by 3rd party tools. This allows to extend their usage to waveform formats that they do not support natively.

The conversion tool supports various options. It can be launched with or without graphical user interface.

The following output formats are supported:

- Comma separated values (*.csv)
- Tabulated data (*.tab)
- Value change dump (*.vcd)
- Hyper text markup language files (*.html)
- Files compatible with Dolphin Integration software (*.tmf, *.amf, *.nmf, *dmf, *mmf).

The underlying waveform parser is also available as a static or shared C library. Software developers have the possibility to directly integrate the parser into their software. The curve data can be accessed directly without having to export it to another file.

Chapter 2 Installation

Analog Flavor software is installed in two steps. First the software package itself is installed. In a second step a license file is generated and installed to allow the software to run.

2.1 System Requirements

Currently Analog Flavor software is available for Linux 32 and 64 bits and Windows XP or later. The executables are build for Red Hat Linux 5 and later. They require GTK+ which is installed by default on all supported Linux distributions. Executables for other platforms can be built on demand.

2.2 Installing the Software

After purchasing the software it can be downloaded from our ftp site. Connect to the ftp site and download the compressed Analog Flavor archive. The file name is "analog_flavor.tar.gz" and might have an extension indicating the version or build date. Copy this archive to an appropriate location and decompress it using the shell command "tar xfz analog_flavor.tar.gz".

This will generate a directory "analog_flavor" with the following directory structure:

- **analog_flavor,** the main directory.
  - **bin,** containing the wrappers for the main executables (Linux) or the binary executables (Windows).
  - **documentation,** containing the user manuals and documentation.
  - **examples,** containing some basic examples for the use of Analog Flavor software.
  - **license**, the location of the license file and executables to start and stop the license server.
  - **platform,** containing the binary executables for different Linux platforms.

The Analog Flavor executables can be launched directly by calling the wrapper scripts in the "bin"directory:

> ./analog_flavor/bin/bspwave_conv

To simplify launching Analog Flavor executables you can add the directory "./analog_flavor/bin" to your PATH variable or define aliases in your ".bashrc" file or equivalent.

2.3 Installing the License

A license file might be required for the software. In this case a window will open when you first launch the software:
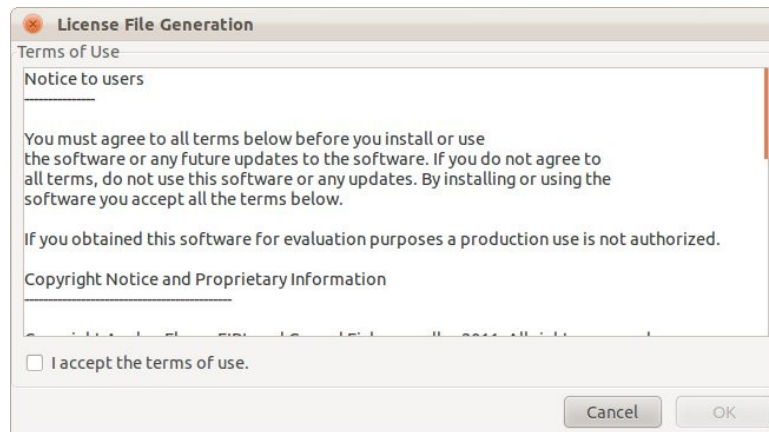
After having accepted the terms of use, a file required for a license request can be generated an saved for example as "license-request.txt". Send this file to your Analog Flavor support. If a license server is required for your installation, also send the IP and an available range of ports for the license server. You will receive a valid license file "license.txt" in return. This file must be copied to the directory "analog_flavor/license/" in your install tree. For a local installation the file can also be copied to the configuration directory "~/.AnalogFlavor".

If a license server is required for your installation, you can start it using by running the command:

> ./analog_flavor/license/af_license_server_start.

If another license server from a previous Analog Flavor software installation is already running, you must first stop the old server by using the command:

> ./analog_flavor/license/af_license_server_stop.

The status of the license server can be checked with:

> ./analog_flavor/license/af_license_server_status.

Now your software installation is complete. Verify it by launching an Analog Flavor executable such as

> ./analog_flavor/bin/bspwave_conv.

If a license request file has to be re-generated or if the "License File Generation" window does not show up automatically it can be shown manually by selecting the appropriate menu item in all Analog Flavor applications.

CHAPTER 3 RUNNING BESPICE WAVE CONVERSION TOOL

The BeSpice Wave Conversion Tool is launched using the command

> ./analog_flavor/bin/bspwave_conv [options]

The specified input file will be parsed and exported to <output_file_name>. Some command line options are available:

- "-h" prints a a help message and the available options and exits.

- "-no_gui" no graphical user interface is launched, the output is generated immediately. The input and output file names have to be specified.

- "-i <input_file_name>" specifies the input file name.

- "-o <output_file_name>" specifies the output file name. The output format will be detected from the file extension if the option "-format" is not specified.

- "-format <format>" defines the output format. The following values are allowed: csv, tab, vcd, tdms, html, amf, dmf, mmf, nmf, tmf, spice_pwl. If "dolphin_integration_compat" is specified the extension is adjusted to the parsed data. The resulting files have the extensions amf, dmf, mmf, nmf or tmf. If this option is omitted, the file extension of <output_file_name> is used to determine the output format.

- "-start <real_value>" defines the first x-axis value written to the output. This option allows to export only a part of the data.

- "-stop <real_value>" defines last x-axis value written to the output.

- "-time_scale <time_scale>" defines the time scale used for vcd output files. The time scale is defined as string such as "1ns". If omitted the time scale is chosen automatically.

- "-precision <integer>" defines the precision for real values in text files.

- "-multiple" generate multiple files if necessary. This option is required to export all data if a file contains multiple data sections. Each section defines a new file. The file names will be changed to "<input_file_name>_n.<extension>".

- "-overwrite" overwrite all existing files.

- "-split_complex" split complex curves to real and imaginary part. This option concerns csv, tab and html export.

- "-column_separator <string>" defines the column separator for csv and tab files. The default value is "," for csv files and "\t" for tabulated data.