

SRILM - The SRI Language Modeling Toolkit

SRILM is a toolkit for building and applying statistical language models (LMs), primarily for use in speech recognition, statistical tagging and segmentation, and machine translation. It has been under development in the <u>SRI Speech Technology and Research Laboratory</u> since 1995. The toolkit has also greatly benefitted from its use and enhancements during the <u>Johns Hopkins University/CLSP summer workshops</u> in 1995, 1996, 1997, and 2002 (see <u>history</u>).

These pages and the software itself assume that you know what statistical language modeling is. To learn about language modeling we recommend the textbooks

- <u>Speech and Language Processing</u> by Dan Jurafsky and Jim Martin (chapter 6 in the 1st edition, chapter 4 in the 2nd edition)
- *Foundations of Statistical Natural Language Processing* by Chris Manning and Hinrich Schütze (chapter 6).

Either book gives an excellent introduction to N-gram language modeling, which is the main type of LM supported by SRILM.

SRILM consists of the following components:

- A set of C++ class libraries implementing language models, supporting data stuctures and miscellaneous utility functions.
- A set of executable programs built on top of these libraries to perform standard tasks such as training LMs and testing them on data, tagging or segmenting text, etc.
- A collection of miscellaneous scripts facilitating minor related tasks.

SRILM runs on UNIX and Windows platforms.

SRILM has been used in a great variety of statistical modeling <u>applications</u>.

Others have published <u>extensions</u> to SRILM that add new functionality.

Documentation

SRILM is still under development. The documentation in particular is work in progress. Best documented are the executable programs, scripts, and file formats, in the form of UNIX-style <u>manual pages</u>. The libraries are documented mostly in the source code. An overview of what the software can do and its design philosophy can be found in the paper "SRILM - An Extensible Language Modeling Toolkit", in Proc. Intl. Conf. Spoken Language Processing, Denver, Colorado, September 2002 (<u>postscript</u>, <u>PDF</u>). Links to other papers and tutorials, as well as frequently asked questions, are also given <u>here</u>.

NEW! A recent paper summarizes updates to SRILM since the 2002 paper.

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Mailing List

Exchange of information among SRILM users, as well as some level of technical support, is provided through the mailing list **srilm-user@speech.sri.com**. Check the <u>user mailing list archive</u> or <u>announcement mailing</u> <u>list archive</u> for past contributions.

To subscribe and obtain more information, follow . this link.

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