The paper discusses a Blaise Source Code Editing System that was designed and developed by Health and Retirement Study (HRS) programmers. It covers the six major design components of a source editing system, as well as specifics relating to application design, development, and testing plans that allowed the creation of the current working system.

The six major design components are: 1) a file reader/parser to process the Blaise source code files, 2) a maker of Blaise statement targets, 3) a translator to change electronic update information into a format the system can process, 4) a merger that combines the update information and the Blaise source code, 5) a file writer to produce the revised files, and 6) an interface to encompass the whole system.

The Blaise Source Code Editing System or “Source Editor” is used to make several hundreds of updates to the Blaise Source files (.bla/.inc) automatically. In the past the process of updating information from electronic review systems had been incorporated into Blaise code by hand, which was a labor-intensive, tedious and error prone process.

The Source Editor has the capacity to handle Blaise applications of approximately 3,500 defined fields, six defined languages, 175,600 lines of source code, 518 procedures, and 344 blocks. Although the Source Editor has options that are HRS specific, it can be run using non-HRS Blaise Applications. It can accommodate changes in the language order, number of languages, and the number of language-related statement targets.

Along with handling updates from review systems, the Source Editor has the capability to run bulk updates. The Source Editor updates the .bla and .inc files automatically, while preserving comments, white space, and the .bla and .inc file structure.