

Since Statistics Canada began using Blaise in late 1990's, the block development process has been a slow and error prone task. It consisted of copying and pasting from the specifications and adding the proper Blaise syntax for formatting. A code generator was developed fairly early on but it still relied on copying and pasting from the specifications.

In early 2011, Statistics Canada released the Questionnaire Design Tool (QDT). This tool is used to specify and manage the development of a questionnaire. All specification elements for new social survey development including question text, interviewer notes, answer types, conditions, and dynamic text are now stored in a central MS SQL database.

With the QDT in place, our team wanted a tool to take advantage of this new specification format and improve our block development process. The Blaise Code Generator (BCG) was created with this in mind. The BCG was created to partially automate block level coding. The goal of the BCG is to write 70-80% of the block level code. This removes all the slow, error prone work and allows the developer to focus on the more difficult block level programming such as logic, flows and edits. It uses business objects and stored procedures from the Questionnaire Design Tool (QDT) database to retrieve the data directly using an SQL adaptor.

The BCG can build a block of code (the largest so far has been 3000 lines) in 1-2 seconds. This has drastically reduced the time needed for block development as well as increasing the quality of the code.