In the chemical process design, the chemical engineer designs the flowsheet that illustrates the sequence of process units and the overview of the chemical process. However, the creation and modification of the flowsheet tends to be difficult and time consuming. Worse yet, it seems to be possible that errors can occur in the design step of the complex flowsheet.

Hence, the purpose of this study is to design and develop a suitable software called ChemProc for drawing the chemical process flowsheet. With this software the user can draw the flowsheet using a symbol in the application or using theirs own symbol. The line symbol and the equipment symbol drawn on the flowsheet can be connected to ease flowsheet modification. In addition, this application supports the design of a complete flowsheet and manages the properties of each symbol on the flowsheet. Furthermore, each symbol contains information about its own technical specification. Users can edit the technical specification and view or print output reports. All symbols on the flowsheet are checked for the correct amount of input and output to make the flowsheet complete.