Visual programming languages are languages with visual syntax. Visual programming systems aim to improve how programmers express information representation and processing so that it is easy to understand and to modify logical connection and results. And visual programming languages are usually embedded in and integrated tightly with visual environments. Visual object-oriented programming refers either to a VPL that supports the object-oriented programming paradigm, or to the use of a visual environment for a textual object-oriented language. The goal of visual object-oriented programming is to combine the advantages of each approach - the reusability and extensibility of object-oriented technology, and the accessibility of visual programming. In this presentation, potentials and limits of visual programming languages will be described. Four paradigms of visual programming languages will be introduced.