A goal of this thesis is to create an open-source application which could serve as foundation for public bus transport analysis and organizing, while directly operating with timetables in a JDF format for a comfortable workflow. The application is centered aroud bus scheduling for public transport organizers and agencies, including related functions such as displaying timetable sheets and departure/arrival lists, map visualization of the planned routes, and creation of custom timetables. All of these features were succesfully implemented and tested on real-world data.