In this work the speciefics of various tournament systems are analyzed and an object data model is proposed that can be used to model these tournament systems conveniently. A tournament management application that implements this model comprises another part of the work. Emphasis was given to the open nature and to the extensibility and universality of the application. Another important part of the work is a case study that shows how the application can be used in praxis. The case study is made using the real data from a robotic competition Eurobot 2010.