One shortage common among developed activity-based travel demand models is the way they present the results. In these models, the decision-making process is a black box to their users and just the final decision on choices like travel mode, location, start time, etc. is presented. Visualization in these models is limited to displaying outcomes of these decisions such as traffic flow. In this study, an innovative GAlaxy-shaped Behavioral Activity-Travel mOdeling Visualizer (GABATOV) is presented. The proposed model, which has a similar graphical presentation to astronomical objects, provides a better understanding of the complex activity-travel behaviors. GABATOV can be used not only for presentation purposes, but also for finding possible bugs in activity-based models.