Towards computation and visualization of symmetries of locally-finite infinite vertex-transitive graphs

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The Zero-Dimensional Symmetry research group at University of Newcastle, Australia, focuses on the study of totally disconnected locally compact groups. These are usually uncountable and there is no obvious way to visualize them. However, in the compactly generated case, these groups can be realized as symmetries of infinite graphs. One could therefore hope to visualize and compute in these groups by drawing or even animating the graph and its symmetry. In my talk I will explain the first steps we have taken in the devepment of tools for such visualizations. The hope is to spark interest and collaborations with experts to take this project to the next stage.