Robert Peck* (rpeck@lsu.edu), School of Music, Louisiana State University, Baton Rouge, LA 70803, and Jack Douthett (douthett@comcast.net). An order 1152 group of triadic transformations and its relevance to music-theoretical structures. Preliminary report.

We investigate the structure of a particular group of order 1152, as it acts on the set of 24 consonant triads. This group contains numerous subgroups of orders 12 and 24 that are isomorphic to the musically relevant groups of transposition and transposition with inversion, including the Riemannian group of contextual operators. Further, it contains several subgroups of order 288 that are wreath products of those order 12 subgroups by the symmetric group of degree 2, and the entire group itself is a wreath product of any one of those order 24 subgroups by the symmetric group of degree 2. Many of these subgroups relate to one another by conjugation, suggesting a natural transformational scheme for these musically significant groups. (Received September 25, 2006)