1107-03-156 **Mariya I Soskova*** (msoskova@fmi.uni-sofia.bg), Faculty of Mathematics and Informatics, Sofia University, 5 James Bourchier Blvd., 1164 Sofia, Bulgaria, and **Theodore A. Slaman**. *An automorphism analysis for the Δ^0_2 Turing degrees.*

We prove that the structure of the Δ^0_2 Turing degrees has a finite automorphism base. We apply this result to show that the automorphism group of this structure is countable and all its members have arithmetic presentations. We show that the structure is atomic and that every relation induced by an arithmetically definable degree invariant relation is definable with finitely many parameters. We prove that rigidity for the structure is equivalent to its biinterpretability with first order arithmetic. (Received January 12, 2015)