

Welcome to the Construction Classification System Database for Understanding Resource Use in Buildings.

This database provides a novel dataset and a building material intensity data ontology to facilitate study of resource use in building design and construction. The ontology developed for this database uses UniFormat (CSI and CSC, 2010) in conjunction with MasterFormat (CSI and CSC, 2016) for organizing and storing the building material data.

The dataset was developed by collecting design or construction drawings for the studied buildings and performing material take-offs based on the drawings. The ontology is based on UniFormat and MasterFormat to facilitate interoperability with existing construction management practices, and to suggest a standardized structure for future MI studies. The structure of the database builds on the structure of the database by (Heeren & Fishman, 2019).

The initial database version is created by the research team supervised by Prof. Shoshanna Saxe at the University of Toronto and submitted to the journal Scientific Data (Güven et al. 2021) to describe the dataset and the associated methods and details.

Thank you for considering contributing to the database. Data contributors must follow the steps detailed below and must ensure that their inputs do not infringe any intellectual property or copyright agreements.

References

CSI and CSC. (2010). UniFormat - A Uniform Classification of Construction Systems and Assemblies. Construction Specification Institute (CSI) and Construction Specifications Canada (CSC).

CSI and CSC. (2016). MasterFormat Numbers & Titles. Construction Specification Institute (CSI) and Construction Specifications Canada (CSC).

Heeren, N., & Fishman, T. (2019). A database seed for a community-driven material intensity research platform. Scientific Data, 1–10. <https://doi.org/10.1038/s41597-019-0021-x>

Güven, G., Arceo, A., Bennett, A., Tham, M., Olanrewaju, B., McGrail, M., Olson, A.W., and Saxe, S. (2021). “A Construction Classification System Database for Understanding Resource Use in Building Construction”, submitted April XX, 2021 to Scientific Data, Nature.