

An online database of root-and-pattern verbs

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This work introduces an online database of root-and-pattern verbs in Maltese. Based on (Spagnol 2011)'s exhaustive enumeration of around 2000 roots and over 4000 verbs, the need arose to convert this information from spreadsheet form into a more accessible and manageable storage format. A relational database schema for Maltese roots and verbs was designed, and the contents of the spreadsheet were semi-automatically imported into the database via comma-separated value (CSV) format. A web-based interface was then built around this database, providing powerful search options for searching by root and/or verb using regular expression syntax.

In addition to information on roots, classes and derived forms from the original source, fields for English gloss, transitivity information, and verb frequency were also added. This information was partially automatically imported from one of the authors' personal notes. The rest of the data is being added manually, and we invite other interested researchers to contribute to the database.

Hosted by the Maltese Language Resource Server (MRLS)¹, this database is intended to be an open-access resource usable by other researchers, students and Maltese language teachers. Apart from the web interface, its contents are also accessible via a REST web service and can additionally be downloaded locally for offline use. This work has already been used as a substantial part of the lexicon for a computational grammar of Maltese (Camilleri 2013).

Future In conjunction with the computational morphology being developed for Maltese, we hope to expand the database to include full-form entries, covering all conjugation and suffixation possibilities. This would boost the number of word forms to roughly 4 million (and that is only counting the root-and-pattern verbs). We also plan to extend the database to cover loan verbs, as well as other lexical categories. We believe this work could serve as the basis for a complete open-access online Maltese lexicon, useful both to end-users and researchers.

References

M. Spagnol, 2011. *A Tale of Two Morphologies. Verb structure and argument alternations in Maltese*, dissertation, University of Konstanz, Germany.

J. Camilleri, 2013. *A computational grammar and lexicon for Maltese*, M.Sc. thesis, Chalmers University of Technology. Gothenburg, Sweden.

¹Available at <http://mlrs.research.um.edu.mt/resources/verbalroots/>