AMUSE 0.3 beta
(Advanced MUSic Explorer)
User Manual

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March 2, 2021

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1 Introduction

1.1 License Notes

AMUSE (Advanced MUSic Explorer) is an open-source Java framework for various music data analysis / music information retrieval tasks. It is developed within Computational Intelligence research group[1] headed by Prof. Dr. Günter Rudolph at the Chair of Algorithm Engineering, Department of Computer Science, TU Dortmund University.

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AMUSE is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU Affero General Public License for more details.

You should have received a copy of the GNU Affero General Public License [2] along with AMUSE.

1.2 Repository and Requirements

AMUSE is available as the GitHub repository[3]. The framework itself is in the folder:

- https://github.com/AdvancedMUSicExplorer/AMUSE/tree/master/amuse

The AMUSE plugins are in the following folders:

- https://github.com/AdvancedMUSicExplorer/AMUSE/tree/master/amusePluginChromaToolbox

- https://github.com/AdvancedMUSicExplorer/AMUSE/tree/master/amusePluginKeras

- https://github.com/AdvancedMUSicExplorer/AMUSE/tree/master/amusePluginLibrosa

- https://github.com/AdvancedMUSicExplorer/AMUSE/tree/master/amusePluginMIRToolbox

- https://github.com/AdvancedMUSicExplorer/AMUSE/tree/master/amusePluginSonicAnnotator

This manual is CURRENTLY UNDER DEVELOPMENT and does not contain the complete information how to use AMUSE. We plan to release the version 0.3 during this year (2021) together with the updated manual.

You should have a Java 8 OpenJDK or a newer version installed on your system.

Some of the AMUSE components and plugins use Matlab and Python. However they are not required to run AMUSE in general.

The current version was tested on Ubuntu Unix, Windows, and MacOS systems.

1.3 History and Remarks about the Current Version (beta 0.3)

The GitHub commits distinguish between different code contributions:

- **BUGFIX**: A correction of wrong behavior

- **EPIC**: The introduction of a new big functionality or alteration

- **NEW_FEATURE**: The introduction of a new small functionality

- **UPDATE**: An alteration that does not change the behavior e.g. refactoring, changed design, or code optimizations

1.4 Citing AMUSE

If you use AMUSE for your research, please cite the following publication [1]: I. Vatolkin, W. Theimer, and M. Botteck: AMUSE (Advanced MUSic Explorer) – A Multitool Framework for Music Data Analysis. Proceedings of the 11th International Society for Music Information Retrieval Conference (ISMIR), pp. 33-38, 2010.

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[1] https://ls11-www.cs.tu-dortmund.de/rudolph/start
[2] http://www.gnu.org/licenses
[3] https://github.com/AdvancedMUSicExplorer/AMUSE

1.5   Studies with AMUSE

1.6   Acknowledgements

1.6.1   Financial Support

1.6.2   Developers

Many contributions to the source code and substantial improvements were done by student assistants at the TU Dortmund University: Philipp Ginsel (since 2018), Fabian Ostermann (since 2015), Frederik Heerde (2017-2018), Daniel Stoller (2011-2015), and Clemens Wältken (2008-2011).

1.6.3   Further Contributors

References

[1] Vatolkin, I., Theimer, W., and Botteck, M. AMUSE (Advanced MUSic Explorer) - a multitool framework for music data analysis. In *Proceedings of the 11th International Society on Music Information Retrieval Conference (ISMIR)* (2010), J. S. Downie and R. C. Veltkamp, Eds., pp. 33–38.