

Non-Commercial Software License Agreement
(hereinafter referred to as “**Agreement**”)

This is a legal agreement between **you** (hereinafter referred to as the “**Licensee**”) and the Technische Universität Berlin, Straße des 17. Juni 135, 10623 Berlin – represented by its president - (hereinafter referred to as “**TUB**”) pertaining to the right to use the Software product “Event-based Parallel Tracking and Mapping (ES-PTAM)” (hereinafter referred to as “**Software**”). Using the Software indicates the acceptance of these terms and conclusion of this Agreement between you as Licensee and TUB.

1. Introduction

- 1.1 TUB’s research group of *Robotic Interactive Perception* (of Prof. Guillermo Gallego) has developed the Software.
- 1.2 Licensee wishes to obtain a non-exclusive, non-transferable and royalty-free license of the Software for non-commercial research purposes as specified in this Agreement.

2. Grant/Scope of License

- 2.1 TUB hereby grants to Licensee a non-exclusive, non-transferable, royalty-free license to modify the Software (the modified Software hereinafter referred to as “**Derivative Work**”) and to use the Software and the Derivative Work and any related documentation for its own internal non-commercial research purposes. With respect to any sublicense, Licensee shall include all of the rights of and obligations due to TUB and contained in this Agreement.
- 2.2 TUB will not provide any services or support in connection with the Software or technical support within the scope of this Agreement.
- 2.3. Licensee agrees not to remove from view or alter any copyright, trademark, confidentiality or other proprietary notice appearing in the Software.

3. Grant Back

- 3.1 Licensee hereby grants to TUB a worldwide, non-exclusive, irrevocable, perpetual, sublicensable, royalty-free and fully paid-up right to use, copy, sell, distribute and modify Derivative Work created by Licensee.
- 3.2 Licensee shall provide the Derivative Work to TUB upon request.

4. Referencing

- 4.1 Licensee agrees to reference the following publications:

Ghosh, Suman and Cavinato, Valentina, and Gallego, Guillermo; ES-PTAM: Event-based Stereo Parallel Tracking and Mapping; European Conference on Computer Vision (ECCV) Workshops; 29.09.2024; <https://arxiv.org/pdf/2408.15605>

4.2. Licensee shall include the following copyright notices in the source code in a customary manner with respect to the Software:

- * \file
- * \brief
- * \author (1) Suman Ghosh
- * \date 2024-09-29

- * \author (2) Valentina Cavinato
- * \date 2024-09-29

- * \author (3) Guillermo Gallego
- * \date 2024-09-29

- * Copyright/Rights of Use:
- * 2024, Technische Universität Berlin
- * Prof. Guillermo Gallego
- * Robotic Interactive Perception
- * Marchstrasse 23, Sekr. MAR 5-5
- * 10587 Berlin, Germany

5. Open Source Components

Parts of the code of the Software fall under an open source licenses whose license agreements are available under

[https://github.com/tub-rip/dvs_mcemvs/blob/main/Software License Agreement TUB dvs_mcemvs.pdf](https://github.com/tub-rip/dvs_mcemvs/blob/main/Software%20License%20Agreement%20TUB%20dvs_mcemvs.pdf)

and

https://github.com/ghoshsuman/rpg_dvs_evo_open/blob/noetic/SOURCE%20CODE%20LICENSE%20AGREEMENT_evo.doc

When using the Software, Licensee will also comply with the terms and conditions of the relevant open source licenses.

Moreover, Licensee shall also include the following copyright notices in the source code in a customary manner with respect to the Open Source Components:

author = {Suman Ghosh and Guillermo Gallego},
title = {Multi-Event-Camera Depth Estimation and Outlier Rejection by Refocused Events},
journal = {Journal of Advanced Intelligent Systems},
year = {2022},
volume = {4},
issue = {12},
month = dec,
doi = {10.1002/aisy.202200221}

and

author = {Rebecq, Henri and Horstschaef, Timo and Gallego, Guillermo and Scaramuzza, Davide},
journal = {IEEE Robotics and Automation Letters},
title = {EVO: A Geometric Approach to Event-Based 6-DOF Parallel Tracking and Mapping in Real Time},
year = {2017},
volume = {2},
number = {2},
pages = {593-600},
doi = {10.1109/LRA.2016.2645143}

6. Warranty Disclaimer

- 6.1 The Software is provided “as is” and TUB makes no representations or warranties, expressed or implied. By way of example, but without limitation, TUB makes no representations or warranties of merchantability of fitness for any particular purpose, or that the functions contained in the Software will meet Licensee’s requirements, or that the use of the Software or Derivative Work will not infringe any third party’s patents, copyrights, trademarks or other rights. Furthermore, TUB does not warrant or make any representations regarding the use or the results of the use of the Software or Derivative Work in terms of correctness, accuracy, reliability, or otherwise or that defects in the Software will be corrected. TUB will not be liable for any consequential, incidental, or special damages, or any other relief, or for any claim by any third party, arising from the use of the Software or Derivative Work.
- 6.2 The Licensee expressly acknowledges and agrees that the use of the Software or Derivative Work is at Licensee’s sole risk and that Licensee will hold harmless and indemnify TUB, and its employees or partners, from and against any third-party claim arising from or in any way related to Licensee’s use of Software or Derivative Work, violation of this Agreement or any other actions in connection with the use of Software or Derivative Work.

7. Title and Ownership.

The title, ownership rights, and intellectual property rights in and to the Software shall remain with TUB.

8. Term and Termination

- 8.1 This Agreement shall become effective upon download of the Software by Licensee.
- 8.2 TUB may terminate this Agreement upon 30 (thirty) days by advance written e-mail notification to Licensee. Upon evidence of violation of any of the terms under this Agreement by Licensee, TUB may terminate this Agreement without previous notice.

- 8.3 Upon termination Licensee is obliged to uninstall the Software and Derivative Work from all its computers and to destroy any copies of the Software and Derivative Work kept according to this Agreement.
- 8.4 Unless earlier terminated, this Agreement shall automatically expire at the end of five (5) years after download of the Software by Licensee.
- 8.5 Articles 3, 6 and 7 shall survive the termination or expiration of this Agreement for any reason in addition to those articles surviving by operation of law.

9. Miscellaneous

- 9.1 This Agreement and the license granted herein or any part thereof under this Agreement are not assignable by Licensee without the prior written approval of TUB.
- 9.2 Licensee shall not use the names or trademarks of TUB, its related entities and its employees, or any adaptations thereof, in any advertising, promotional or sales literature, or in any securities reports required by the respective authorities, without the prior written consent of the TUB.
- 9.3 Each party is acting as an independent contractor and not as an agent, partner, or joint venture with the other party for any purpose. Neither party shall have any right, power or authority to act or create any obligation, express or implied, on behalf of the other party.
- 9.4 This Agreement sets forth the entire Agreement between the parties with respect to the subject matter hereof. No supplement, modification or amendment of this Agreement shall be binding, unless in writing signed by a duly authorized representative of each party to the Agreement.
- 9.5 Should some or several provisions of this Agreement be ineffective or invalid, or should there be an omission in this Agreement, the effectiveness, respectively the validity of the remaining provisions shall not be affected thereby. An ineffective, respectively invalid provision shall be replaced by the interpretation of the Agreement which comes nearest to the economic meaning and the envisaged economic purpose of the ineffective respectively, invalid provision. The same applies in the case of a contractual gap.
- 9.6 The terms stipulated in this Agreement may not be modified in any way without the mutual consent of the parties in writing.

10. Governing Law and Jurisdiction

This Agreement shall be governed by the laws of Germany. Any dispute arising from or in connection with this Agreement will be finally settled by the courts of Berlin, Germany.