



ASTRI Mini-Array Software Licensing Policy



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| Version | Date | Modification |
| 1.0 | Feb 15, 2021 | First version after internal check of the ASTRI-MA software engineering team |
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1. Introduction

The **ASTRI Mini-Array (MA)** is an INAF project aimed to observe astronomical sources emitting at very high-energy in the TeV spectral band. The ASTRI MA consists of an array of nine innovative Imaging Atmospheric Cherenkov telescopes that are an evolution of the two-mirror ASTRI Horn telescope successfully tested since 2014 at the Serra La Nave Astronomical Station of the INAF System of Catania. Each telescope will be equipped with the new version of the ASTRICAM Silicon photomultiplier Cherenkov Camera. The main science goals of the ASTRI MA encompass both galactic and extragalactic science. The nine telescopes will be installed at the Teide Astronomical Observatory, operated by the Instituto de Astrofísica de Canarias (IAC), on Mount Teide (~2400 m a.s.l.) in Tenerife (Canary Islands, Spain). The ASTRI MA will be operated by INAF on the basis of a host agreement with IAC.

1.1. Purpose

This document describes the policy for the licensing of the ASTRI Mini-Array software products.

1.2. Scope

This document applies all the software of the ASTRI Mini Array software.

1.3. Contents

The section 3 provides the types of software scope of this document. The section 4 and 5 describe the license policies and their application to the ASTRI software. The last sections provide more detail for external contractors and contributors.

1.4. Definitions and Conventions

1.5 Abbreviations

| | |
|-------|--|
| AD | Applicable Documents |
| ASTRI | Astrofisica con Specchi a Tecnologia Replicante Italiana |
| BSD | Berkeley Software Distribution |
| GPL | General Public License |
| IAC | Instituto de Astrofísica de Canarias |
| INAF | Istituto Nazionale di Astrofisica |
| LGPL | Lesser General Public License |
| PO | Project Office |
| RD | Reference Documents |

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2. Applicable and reference documents

2.1. Applicable documents

2.2. Reference documents

[RD1] GNU Lesser General Public License v3: <https://www.gnu.org/licenses/lgpl-3.0.html>

3. Types of ASTRI Software

The ASTRI Software will be of three categories:

- A. Off-the-shelf software purchased by external providers (commercial software).
- B. Derived software that is any software that is based upon one or more existing software that has a license that allows modifications and derived works to be distributed under the same terms as the license of the original software (e.g ALMA, CTA, ASTRI-Horn).
- C. Bespoke software, that is the custom or tailor-made software for ASTRI own purpose (provided either by ASTRI teams or contractors).

The Off-the-shelf and derived software is out of the scope of this document and shall follow their own policies. Concerning the software developed specifically for the ASTRI project, it shall be recognized as the property of INAF and will follow the guidelines detailed in the present document.

4. Policy description

1. All ASTRI software shall have a copyright notice which is a description of who asserts the copyright over the software.

Notes: Derived software and bespoke software will normally comprise code modules that have a mixture of copyright attributions.

2. All ASTRI software shall have a software license which is a legal instrument governing the use and redistribution of software.

Notes:

- Off-the-shelf software will normally have licenses over which the ASTRI has no control.
- Bespoke software provided by ASTRI collaboration will normally have a permissive open source license LGPL [RD1].
- Bespoke software provided by external contractors will at least have a permissive license to access and modify the source code. The detailed policy shall be agreed in the specific contracts.



5. Applying license to the Software

Software which is created by ASTRI collaboration members shall include the following statement at the top of each file:

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Copyright (C) 2020 INAF
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This program is free software: you can redistribute it and/or modify it under the terms of
the GNU Lesser General Public License as published by the Free Software Foundation, either
version 3 of the License, or (at your option) any later version. This program is distributed
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Authors:

Name Surname <affiliation> <mail>

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6. External packages and licenses

Authors of ASTRI bespoke or derived software that intends to use external packages must verify with and get permission from ASTRI Project Office before adding such packages. ASTRI Project Office personnel will verify under what licenses these are available and, if these are unusual licenses, what compatibility problems are known. Any potential issue with export control rights will be taken into consideration.