Source Code Guidelines Acquisition Language - Grants

Use case 1: Grants and funding agreements with a need for source code

Updated as of: 6/10/20

DISCLAIMER: This document reflects the policy objectives of the ITS JPO, specifically the ITS JPO Source Code Guidelines, and applies ONLY to research projects funded, either fully or partially, by the ITS JPO. This document may not be suitable for other U.S. DOT or non-U.S. DOT missions. For any questions or concerns regarding the applicability of this document or the ITS JPO Source Code Guidelines, please contact the ITS JPO at data.itsjpo@dot.gov.

I. Introduction:

The ITS JPO Source Code Guidelines outline key requirements that increase the ITS JPO's return on investment for projects producing source code, including making this source code publicly accessible and open source. To operationalize these requirements, solicitations for ITS JPO projects producing source code must have procurement language requiring adherence to relevant portions of the ITS JPO Code Guidelines.

II. How to Use This Language

The below language is meant to be put into ITS JPO-funded grant and funding agreement solicitations that will produce source code. This language should be tailored and inserted as appropriate for specific procurements. ITS JPO Program Managers and acquisition personnel are anticipated to make the determination of what language should be incorporated for a specific solicitation. It is recommended that as much of this language as possible is incorporated for projects that will produce source code. For more information on license requirements stated in this language, see the ITS JPO Open License Guide. For more information on the README, LICENSE, and CONTRIBUTING deliverables requested as part of this language, see ITS JPO's README template.

ITS JPO Program Managers and acquisition personnel must consider including elements of this language in a procurement if a grant or funding agreement *might* produce source code, even if it is not an explicit deliverable or deemed necessary at the solicitation stage. In particular, all grants and funding agreements should incorporate the Data Rights portion of this language, as not including this section opens up the U.S. DOT to risk that it will not have appropriate rights to data or source code developed over the course of a project. If a project is expected to produce data, ITS JPO Program Managers and acquisition personnel must also consider adding procurement language requiring adherence to the ITS JPO Data Access Guidelines. This language may overlap in parts with the below language, so ITS JPO Program Managers and acquisition personnel must review all language (source code and data) to make sure it is clear, concise, not duplicative, and obtains appropriate artifacts and requirements for ITS JPO.

Projects doing major software development can also contact ITS JPO (data.itsjpo@dot.gov) and the IT Acquisition Center of Excellence for more information on best practices for agile software development contract language to augment this baseline language for all projects producing source code.

Notice Section	Source Code Guidelines Requirement	Suggested Source Code Language
A. Program Description	Preference for existing solutions over custom-developed code	The U.S. DOT encourages contributions to existing, non-proprietary code over the development of new, siloed code bases. The U.S. DOT also prefers hybrid solutions - or those containing a mixture of existing federal, commercial, or open source code and custom-developed code. Projects must make every attempt to use publicly available data and source code, or data and source code that can be made public, before using proprietary data and source code. Additionally, the U.S. DOT is looking for a Recipient that will use the latest data and source code methodologies and standards accepted by industry and is able to evolve with the latest industry-accepted methodologies and standards throughout the course of the project.
A. Program Description	Open Source	The U.S. DOT strongly prefers that the Recipient use, acquire and develop open source technologies throughout the course of the project and that any code developed for the project is open source. Open source is defined as publicly accessible works that can be used, modified, and shared by anyone, and distributed under licenses that comply with the definition of "Open Source" provided by the Open Source Initiative and/or meet the definition of "Free Software" provided by the Free Software Foundation. The priority of open source should be reflected in the Applicant's response.
B. Federal Award Information	General Compliance	All work conducted under this **[**grant/agreement**]** must comply with all federal, U.S. DOT, ITS JPO, and other applicable policies and guidelines (e.g. the Federal Source Code Policy, U.S. DOT Departmental Source Code Management Memo, and Code.gov guidance) throughout the period of performance of this work, including those at https://its.dot.gov/code/#/source-code-guidelines. The Recipient must also comply with new and updated policies throughout the period of performance, including updates to federal, U.S. DOT and ITS JPO policies and guidelines.

B. Federal Award Information	Accessibility, Security and Licensing	The Recipient must make available to the U.S. DOT copies of all work developed in performance of this **[**grant/agreement**]**, including but not limited to software and data. Consistent with federal and U.S. DOT policy, all source code developed through this project must be made publicly accessible and developed in the open unless a specific intellectual property, privacy, security or other valid restriction on public access is identified and approved by the U.S. DOT. Where valid restrictions exist, the Recipient must make source code and associated documentation adhere to as many open source and open development principles as possible. This may include making a redacted version of the source code publicly accessible, using an incremental release schedule, or restricting access only to sensitive portions of the code. When made accessible, source code must be available in an open format and use open standards that are platform independent, machine readable, and available to the public for free and without restrictions that would impede the reuse of the source code. The Recipient must assign the Creative Commons Zero (CC0 1.0 Universal) license to all new source code and associated documentation developed in performance of this **[**grant/agreement**]**. The assignment of this license must occur when the source code is made publicly available and made explicit to the public. Project teams may retain existing licenses for any preexisting software integrated into project solutions. In the event preexisting software is used, the U.S. DOT only requires that project teams assign CC0 to new federally-funded, custom-developed source code. The Recipient must make all licensing relationships with preexisting software clear in applications and documentation, including README and LICENSE files for associated source code. The Recipient is required to include these obligations in any sub-awards or other related funding agreements. The U.S. DOT expects Recipients to remove Confidential Business Information (CBI) and Personally Identifiable Information (PII) before providing public access to source code. Source code must adhere to all relevant federal and U.S. DOT security policies, including but not limited to FIPS 199, NIST SP 800-37, the DOT Cybersecurity Policy, the DOT Departmental Cybersecurity Compendium, the DOT Privacy Risk Management Policy, DOT Order 1351.19, and PII Breach Notification Controls. Recipients must use source code

		analysis tools or comparable means to analyze the code and/or compiled versions of code and detect and report weaknesses to U.S. DOT.
B. Federal Award Information	Storage	The Recipient shall set up necessary software repositories for source code development. These repositories should be set up in a source code storage system that provides an appropriate level of user access, functionality, and source code management. If the U.S. DOT determines that a proposed source code storage system does not provide an appropriate level of user access, functionality and source code management, the Applicant must propose a new system for approval by the U.S. DOT. Applicants should budget for the costs of source code storage, sharing and management as appropriate.
B. Federal Award Information	Data Rights	Data rights under this **[**grant/agreement**]** shall be in accordance with 2 CFR 200.315, Intangible property.
B. Federal Award Information	Retention	Source code and associated metadata and user documentation developed under this **[**grant/agreement**]** must be retained and made accessible to the U.S. DOT for a minimum of five years. This retention period begins when the U.S. DOT first receives access to the source code and associated metadata and user documentation.

B. Federal Award Information - Deliverables	Standards	The Recipient must make the source code and associated documentation cited herein available on the U.S. DOT's website ITS CodeHub (https://www.its.dot.gov/code/) when source code development begins, and any other appropriate website as requested by the U.S. DOT. Note: All materials posted on a U.S. DOT website must be Section 508 compliant.
		
		Deliverables for this award include:
		
		• Source code, documentation, and testing scripts that meet acceptance criteria as approved by the Government
		• As required, a new repository with appropriate permissions, documentation, and security and continuously updating this repository
		• Repository documentation, to include a README, LICENSE, CONTRIBUTING, and any other files deemed necessary. Templates and examples for these materials can be found on ITS CodeHub. All repository documentation must be stored in the same location as the source code and should describe how the source code will be managed during and after the project. This documentation must contain, at a minimum:
		  ○ A README file, including at a minimum:
		  ▪ Status of the source code (prototype, alpha, beta, release, etc.)
		  ▪ Intended purpose of the source code and description of what the source code does
		  ▪ Expected engagement level (i.e. how frequently the community can expect activity)
		  ▪ Any other relevant technical details on how to build, make, install, or use the software, including dependencies
		  ▪ A Digital Object Identifier (DOI), and recommendation that users of the source code reference that DOI for attribution in derivative works
		  ○ A LICENSE file, including at a minimum:
		  ▪ Licensing status of the source code
		  ▪ Full text of the open source license or a link to where the license is officially maintained
		  ▪ Explanation of licensing relationships with any preexisting software used with the source code

		○ A CONTRIBUTING file, including at a minimum: ▪ Description of the licensing status of the source code ▪ How contributions by third parties to the source code will be released (e.g., whether they will be released under the same license and whether those contributors waive their rights accordingly) ▪ Description of coding practices and community norms requested of potential contributors
D. Application and Submission Information		Applicants should describe how they will adhere to all requirements listed in Section B **[**or other relevant section**]** of this **[**notice/etc.**]**. Applicants should budget for the costs of source code storage, sharing and management as appropriate. Applications should include a description of an Applicant's plan for the overall structure of their source code and what source code storage system(s) the Applicant intends to use, as well as a preliminary README, LICENSE, and CONTRIBUTING file for all source code that explains how the Applicant intends to manage source code developed as part of this project. Templates and examples for these materials can be found on ITS CodeHub. **[No need to duplicate the following requirement if existing language covers PII and CBI marking]** If the submission includes information the Applicant considers to be trade secret or confidential commercial or financial information, the Applicant should do the following: (1) Note on the front cover that the submission ''Contains Confidential Business Information (CBI)'', (2) mark each affected page ''CBI'', and (3) highlight or otherwise denote the CBI portions. **[**funding agency**]** protects such information from disclosure to the extent allowed under applicable law. If **[**funding agency**]** receives a Freedom of Information Act (FOIA) request for the information, **[**funding agency**]** will follow the procedures described in the Department's FOIA regulations at 49 CFR part 7.

E. Application Review Information		• Applications that demonstrate a strong commitment to open source development, publicly available and publicly accessible code in a way that appropriately addresses CBI or PII concerns will be viewed more positively. • A source code structure and storage plan, as well as preliminary README, LICENSE, and CONTRIBUTING files will be evaluated for alignment to the solicitation's goals and adherence to the solicitation's requirements, as well as confidence that the Applicant has thought through all aspects of source code management with the goal of public accessibility in mind.

Applicable Clauses:

- 2 CFR 200.315, Intangible property
- 17 U.S.C. 105, Subject matter of copyright: United States Government works