

Call for Offers:

P_2021_01 – ASAM XIL V3.0.0

ASAM calls for offers to support the ASAM XIL project group. Please send your offers for this project to offers@asam.net. Offers may be submitted on one or more of the positions listed in Table 1.

Offers shall be submitted no later than 07.05.2024.

Timetable

Deadline	Topic
May 07, 2024	Final Deadline to submit offer (submit to offers@asam.net) Offers must be submitted in writing to ASAM within the above stated bidding period, including a clear description of the provided services and deliverables, terms & conditions, time period and costs for the service.
May 21, 2021	Service provider start
Sep 30, 2024	Project end

Goals of the ASAM XIL project group

Note that these are the goals of the overall ASAM project, the specific tasks for a service provider within this project are detailed in the next section called: Tasks for Service Provider.

This project intends to implement some change requests by the VDA project group “SIL Standardization” to support more complex test environments, which are typically found in the SIL environment. Additionally, the extensions and modifications requested by the concept project “ASAM XIL for Service Oriented Communication” shall be realized. Due to some major modifications, the new version 3.0.0 will be incompatible to the current version 2.2.0.

Overall, the following key features shall be implemented by the project group:

- Introduction of a new value container with generic complex data types
- Introduction of a new testbench port for access to service-oriented communication (SOC): This covers tests of service provider or service consumer as well as integration tests in the network and storage of SOC data in ASAM MDF.
- Traceability of test case execution, including logging of events
- Usage of complex setup routines to react to status events of the test system.
- Monitoring of variables and states by streaming instead of polling
- Error injection modification to stimulate function signals.
- Access to system description via an API
- Rework of the existing ECU-M and ECU-C testbench ports to one common ECU port
- Usage of the standard in Linux environments

The current available ASAM XIL version as well as related documents and information can be found following the below links:

<https://www.asam.net/project-detail/asam-xil-v300/#>

<https://www.asam.net/standards/detail/xil/>

Tasks for Service Provider

The project group made the decision to make some changes to its authoring toolchain. This includes removal of the technology independent data model, transitioning to work directly in C# with a direct mapping to python. The tasks for the service provider are primarily to support work stemming from this transition.

Position	Item	Costs
1	Editorial revisions	5000€
2	UML Graphic conversion	10000€
3	Compare error codes	5000€
4	Mapping rules comparison & unit tests	15000€

Table 1: Positions in this RfQ

Editorial revisions

Editorial revisions including restructuring of the ASAM XIL Programmers Guide in order to achieve compatibility with the ASAM Editorial Guide V1.1. This concerns mainly the adaptation of the rules defined in the ASM-22 from the ASAM Editorial Guide.

Qualification

In order to be able to carry out the tasks, the service provider shall meet the following conditions:

- High proficiency in technical English writing

UML graphic conversion

Many of the explanatory graphics in the standard documents are still graphics from the proprietary tool UML tool Enterprise Architect (EA) or of other proprietary tools. These must be converted to a format that is maintainable independently of these tools, for this the project group has decided to use the open-source format PlantUML for UML diagrams, and draw.io for other types of graphics. In the conversion, the size of some large images may need to be reduced into smaller sized images in order to fit the final formatting deliverable. The continuous text accompanying the large images therefore may also need to be adjusted in its formatting. Regulations regarding the UML conversions of class, sequence & state diagrams can be found in the ASAM XIL Writing Guide, which will be provided to you.

Currently there are:

- 200 unconverted images, -40 that do not come from EA, such as coreldraw or adobe illustrator

Conversion

- 160 UML images to PlantUML format
- 40 adobe illustrator/coreldraw images to Draw.io format

Qualification

In order to be able to carry out the tasks, the service provider shall meet the following conditions:

- Experience with ASAM XIL and/or Plant UML as well as adobe illustrator/coreldraw would be beneficial.
- High proficiency in technical English writing

Compare error codes (plausibility check)

Both the testbench and the framework have individual definitions of error codes. These need to be compared against the error codes used throughout for consistency.

The ASAM Project group will first consolidate the error codes into two lists (enumerations), one for testbench and one for framework.

Based on this list of accepted error codes:

- Invalid, misplaced and/or unused error codes need to be located and deleted.

Qualification

In order to be able to carry out the tasks, the service provider shall meet the following conditions:

- Expertise in C# and/or ASAM XIL as well as regular expressions would be beneficial.

Mapping rules comparison & unit tests

Based on the predefined (C# to Python) mapping rules document, it must be checked whether the mapping rules are correct, complete and easy to implement. For each rule, exemplary wrapper code based on python.net as well as native python must be created. This will serve as validation of the python mapping rules.

Qualification

In order to be able to carry out the tasks, the service provider shall meet the following conditions:

- Expertise in C# and Python would be required.
- Experience with ASAM XIL would be additionally beneficial.
- High proficiency in English

Max. Service provider Budget: **35000€**

General conditions

Please note the following general conditions for the project:

- The project lead, ASAM office and service provider will jointly determine the need for attendance of the service provider in meetings.
- Offers have to be preferably work packaged based (categorization according to the different tasks presented in this document). The offers can be made addressing one, more or all the tasks.
- In the event of variable-price offers, please indicate upper limits for the costs.
- In case a deliverable is found to be defective or not up to customary industry quality standards, the service provider will correct the deliverable without charging ASAM for the extra work. Not completed work is exempted from the service provider's warranty, i.e. if a deliverable is found to be incomplete, then its completion will not be paid by ASAM.
- Modification to deliverables, should they be required, will be jointly reviewed and the order adjusted accordingly.
- All work results of the project (including the sources to create them) will be handed over to ASAM and will become the exclusive property of ASAM. If the general terms & conditions of the service provider contain rules that are in conflict herewith, then they must be identified and explicitly declared as invalid for this offer.
- Offers have to be submitted in writing to ASAM within the above stated bidding period, including a clear description of the provided services and deliverables, terms & conditions, time period and costs for the service.
- Please note that offers will be reviewed by the members of the project group, the Technical Steering Committee of ASAM and the ASAM Office. The project group members will not receive pricing information. For this purpose, please put all pricing information on a separate page