

DARPA-PA-20-02-01
Recovery of Symbolic Mathematics from Code (ReMath)
Frequently Asked Questions

As of August 27, 2020

Q5: Based on the posted ReMath Schedule of Milestones it seems the emphasis during the Base period is on Source code analysis while the emphasis for the Option is on Binary code analysis. Would a proposal strictly focusing on binary-code analysis (complemented by AI) to accomplish the goals of the program be in scope (i.e. no source code analysis component)?

A5: Such a proposal, effectively minimizing the aid from source code-level representations when available, will be in scope if it meets the described milestones and presents compelling technical rationale for being able to do so.

Q4: Month 15: Reliable extraction of formulaic expressions from binary-level code (compiled executable code or bytecode), unaided by source-level representations. Is Phase 2 asking us to extract mathematical primitives & formulaic expressions from binaries, (aided by their source code)? Or is it asking us to extract primitives & expressions just from source code directly?

A4: Phase 2 focuses on extraction from binaries, where source code for the specific binary is not available.

Q3: Phase 1 / Month 6: "Reliable extraction of formulaic expressions aided by source-level representations."

A3: For this milestone, performers will demonstrate the capability to produce mathematical formulas that correctly and succinctly describe the calculations carried out by relevant sections of code, with the underlying source code made available. No assumption is made regarding the provenance, style, or readability of the source code, except that it matches the specific binary, and that code of similar style could be plausibly encountered in an industry setting.

Q2: We noticed that the AIE Program DARPA-PA-20-02 mentions that no DD-254s will be issued, however we were wondering if there is a possibility that we would be given classified targets to test out our solutions on in Phase 2 if awarded. Should we make provisions for classified processing in Phase 2?

A2: There is no current plan to focus Phase 2, if approved, on classified targets.

Q1: Could you please tell me if the Presolicitation posted as solicitation number DARPAPA200201 will be a follow-on requirement to any work performed currently or in the past, or will this be a new requirement?

A1: ReMath is an AIE (Artificial Intelligence Exploration). AIE awards are small awards used to evaluate and explore novel concepts in AI. AIEs allow for a diversity of approaches to explore possible future program areas.