

# README

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## what the artifacts do

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Our artifacts include three parts, type inference, fuzzer and coverage collecting.

For the type inference part, our tool uses differential analysis to reason about the type information of the binding calls in PDF Readers.

For the fuzzer part, our tool uses the type information to guide the generation of test PDFs.

For coverage collecting part, our tool uses DynamoRIO to collect the coverage information when running test PDFs.

## where to get artifacts

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You can download the source code of our artifacts from [software heritage](#).

We have also prepared a VirtualBox virtual machine with all the test environment for easier reproduction.

The virtual machine can be downloaded from [zenodo](#).

## how to reproduce

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We have prepared very detailed guidance for the reproduction, you can find them from README.pdf along with the source code. Besides, we have also prepared these README files in the virtual machine.

For the type inference, please refer to

`C:\Users\wxy\TypeOracle\Tools\TypeInfer\adobe\README.pdf` for type inference in Adobe Reader and `C:\Users\wxy\TypeOracle\Tools\TypeInfer\foxit\README.pdf` for type inference in Foxit Reader.

For the fuzzer , please refer to `C:\Users\wxy\TypeOracle\Tools\Fuzzer\README.pdf`.

For the coverage collecting, please refer to

`C:\Users\wxy\TypeOracle\Tools\Coverage\README.pdf`.

For some tips that may be helpful for the reproduction, please refer to

`C:\Users\wxy\TypeOracle\Other\Tips.pdf`