

INSTALL

This document describes how to install our tool and the target software.

TypeOracle Install

Since most parts of our tool is implemented by python, so if the python is installed, our tools can run normally.

In order to run our tool, some python packages need to be installed, they are `psutil` and `pywinauto`.

You can install these two packages by the following commands

```
pip install pywinauto
pip install psutil
```

Besides python, our tool use pin.exe to instrument the PDF Readers, you can download pin from <https://www.intel.com/content/www/us/en/developer/articles/tool/pin-a-binary-instrumentation-tool-downloads.html>.

Downloads

Download Pin kits here. Before using Pin, please read the [license](#).

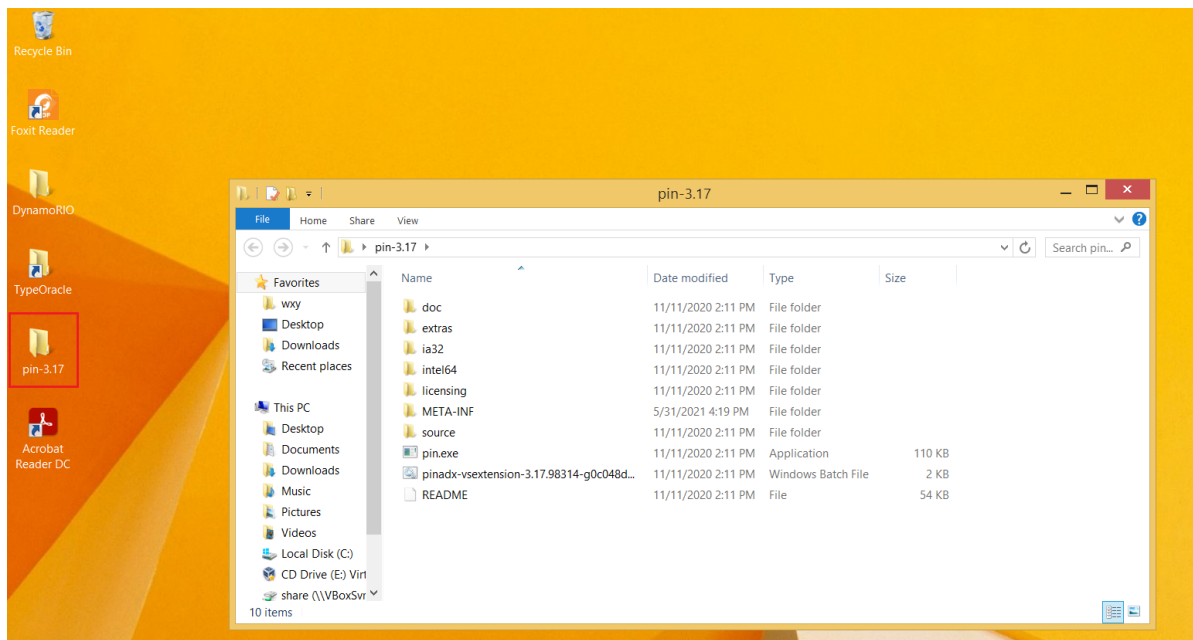
Windows*

IA32 and intel64 (x86 32 bit and 64 bit)

Version	Date	Kit	Documentation		
Pin 3.25	October 20, 2022	98650	Manual	PinCRT	Release Notes
Pin 3.24	July 18, 2022	98612	Manual	PinCRT	Release Notes
Pin 3.23	May 12, 2022	98579	Manual	PinCRT	Release Notes
Pin 3.22	February 28, 2022	98547	Manual	PinCRT	Release Notes
Pin 3.21	October 28, 2021	98484	Manual	PinCRT	Release Notes
Pin 3.20	July 12, 2021	98437	Manual	PinCRT	Release Notes

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We have already install the pin in the virtual machine.



Last, you also need to install DynamoRIO, you can download it from https://dynamorio.org/page_releases.html.

Releases

For the very latest changes since the last official release, you can download **Weekly Builds**.

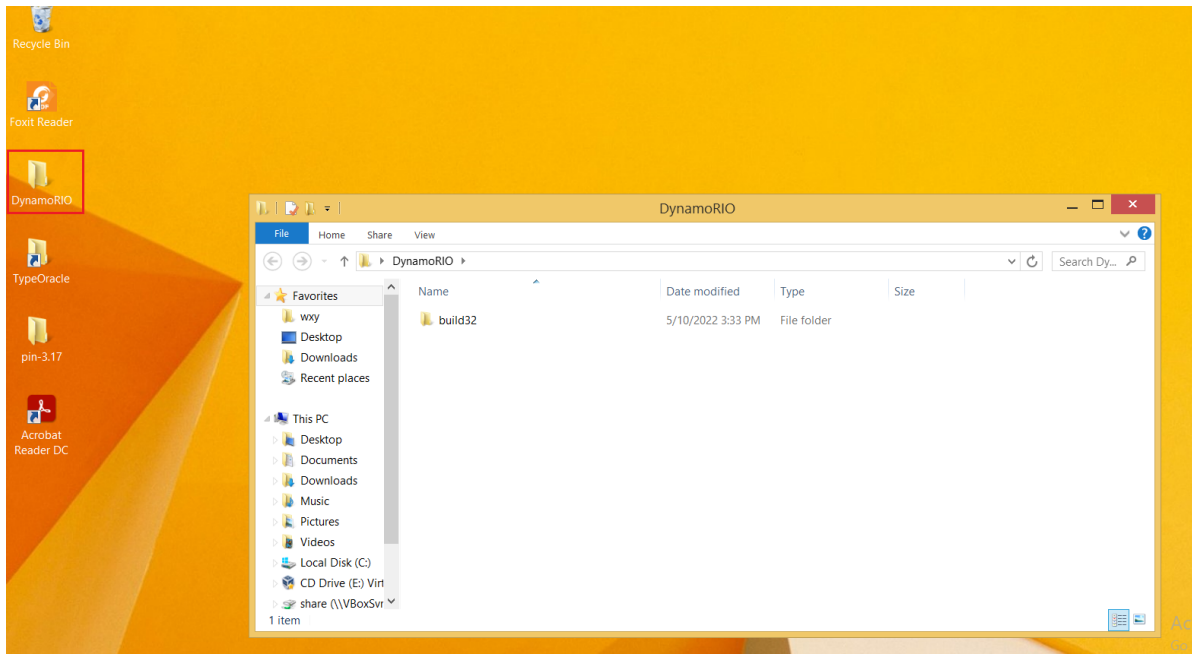
The 9.0.1 release:

- [DynamoRIO-Windows-9.0.1.zip](#)
- [DynamoRIO-Linux-9.0.1.tar.gz](#)
- [DynamoRIO-ARM-Linux-EABIHF-9.0.1.tar.gz](#)
- [DynamoRIO-ARM-Android-EABI-9.0.1.tar.gz](#)
- [DynamoRIO-AArch64-Linux-9.0.1.tar.gz](#)

The prior 8.0.0 release:

- [DynamoRIO-Windows-8.0.0-1.zip](#)
- [DynamoRIO-Linux-8.0.0-1.tar.gz](#)
- [DynamoRIO-ARM-Linux-EABIHF-8.0.0-1.tar.gz](#)
- [DynamoRIO-ARM-Android-EABI-8.0.0-1.tar.gz](#)
- [DynamoRIO-AArch64-Linux-8.0.0-1.tar.gz](#)

We also install DynamoRIO in the provided virtual machine.



Target Software Install

In our experiment, we test our tool on two PDF Readers, Adobe Acrobat Reader and Foxit PDF Reader.

For Adobe Acrobat Reader, you can download it from <https://helpx.adobe.com/acrobat/release-notes/release-notes-acrobat-reader.html>.

Acrobat and Acrobat Reader Continuous Track release notes

Date	Release Notes	Release Type*	Focus
Nov 17, 2022	DC Nov 2022 (22.003.2028x)	Optional Update	Latest Release: This patch fixes specific functionality issues.
Oct 22, 2022	DC Oct 2022 (22.003.20263)	Optional Update	[Win Only] This patch fixes specific functionality issues.
Oct 11, 2022	DC Oct 2022 (22.003.20258)	Continuous	This update provides new features, feature enhancements, and bug fixes.
Sep 09, 2022	DC Sep 2022 (22.002.20212)	Optional Update	This patch fixes specific functionality issues.
Aug 09, 2022	DC Aug 2022 (22.002.20191)	Continuous	This update provides security mitigations and bug fixes.
Jul 12, 2022	DC Jul 2022 (22.001.20169)	Continuous	This update provides security mitigations and bug fixes.
Jun 14, 2022	DC Jun 2022 (22.001.20142)	Continuous	This update provides new features, feature enhancements, and bug fixes.

For Foxit PDF Reader, you can download it from <https://www.foxit.com/pdf-reader/version-history.html>.

Foxit PDF Reader Version History

Version 12.1.0.15250

Release Date: December 13, 2022

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New Features and Improvements in Foxit PDF Reader 12.1.0.15250

- Improved compatibility with Windows 11 UI style
 - Show the Snap layouts when you hover the mouse over the application window's maximize button.
 - Round the window corners of the application's main window, dialog boxes, and drop-down menus.

We also provide the installer packages in the virtual machine, you can find them in

`C:\Users\wxy\TypeOracle\Other\Installers`

