README.md

# Randy

## What

This is a pre-authenticated RCE exploit for Inductive Automation Ignition that impacts versions <= 8.1.16. We failed to exploit the bugs at Pwn2Own Miami 2022 because we had a sloppy exploit and no debug environment, but since then we have found the time and energy to improve it!

## Authors

Chris Anastasio and Steven Seeley (mr_me) of Incite Team

## Build

1. Build with `mvn clean compile assembly:single -DskipTests`

## Tested

The exploit was tested against 8.1.16 using the Windows 64-bit Installer which you can download here (SHA1: f135d32228793c73c4cdd88561cdbdb44b19290c) but it has known to work against other older versions as well.

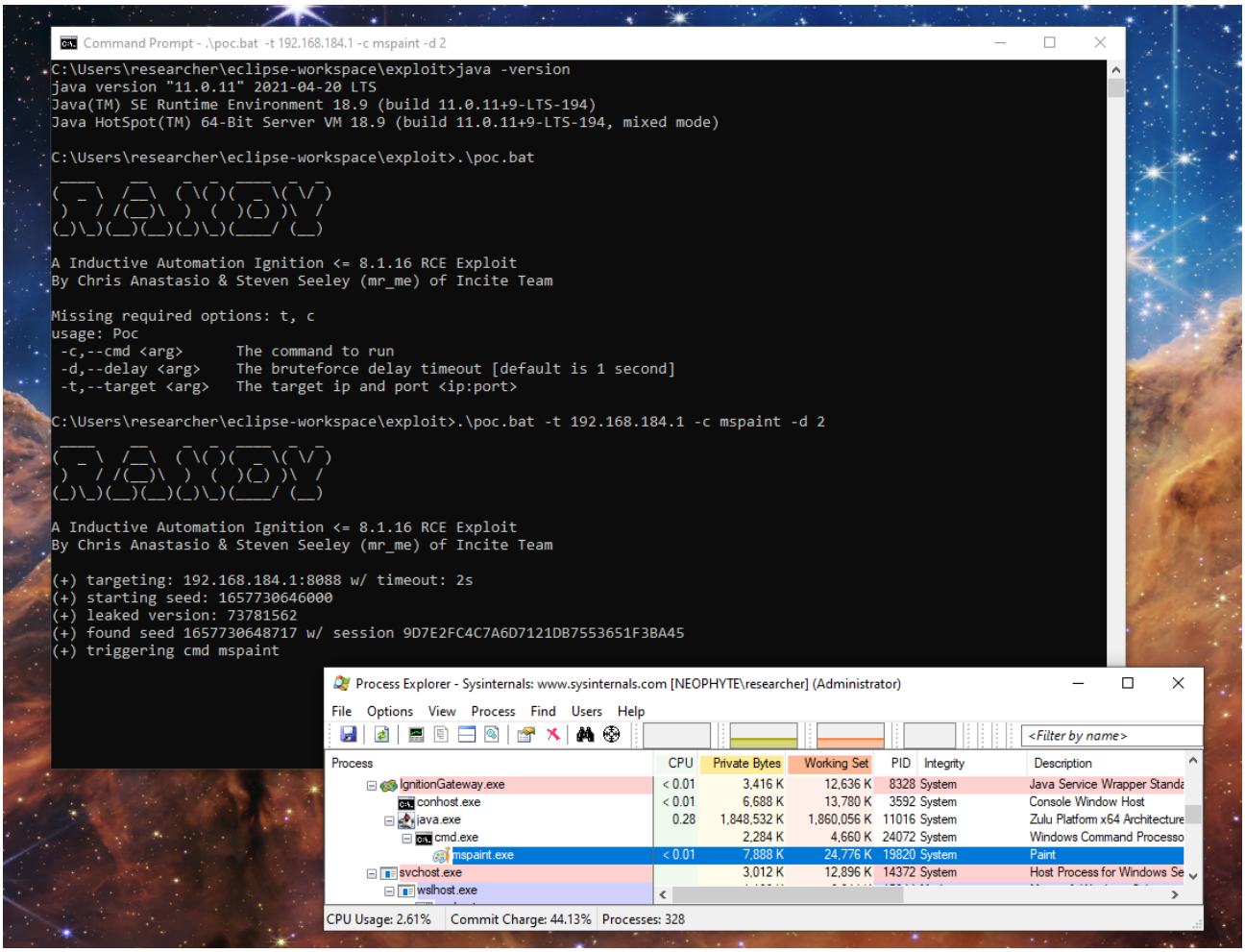
## Notes

- At the time of release, no CVE's were assigned to the bugs
- This exploit takes advantage of two vulnerabilities that have been patched:
  - CVE-2022-35890 - GatewaySessionManagerImpl Authentication Bypass
  - CVE-2022-36126 - ScriptInvoke Remote Code Execution
- The exploit requires an admin user to be logged into the gateway. During testing it was found that sessions live forever unless a user explicitly logs out.
- The exploit should be ran from a Windows host (due to the `SecureRandom` seed prediction attack).
- The exploit targets Ignition deployed under Windows, since `SecureRandom` is not so secure under that environment.
- The exploit was tested with Java v11.0.11.

## Run

Run the exploit with `java -cp target/randy-0.0.1-SNAPSHOT.jar com.srcincite.ia.exploit.Poc`

## Example




## Releases

No releases published

## Packages

No packages published

## Contributors 2

**stevenseeley** (mr_me) of 360 Vulnerability Research Institute

**sourceincite** Source Incite

## Languages


Java 99.4%
Batchfile 0.6%