

IntelliJ Solidity Debugger

Solidity Summit 2022

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Web3j

Released 2016!

Leading JVM/Android library for Ethereum

Over 65k downloads/month

Over 1.5m total downloads

Used by:

J.P.Morgan



Ecosystem

Core library

- JSON-RPC, wallets, smart contract wrappers

Build tools

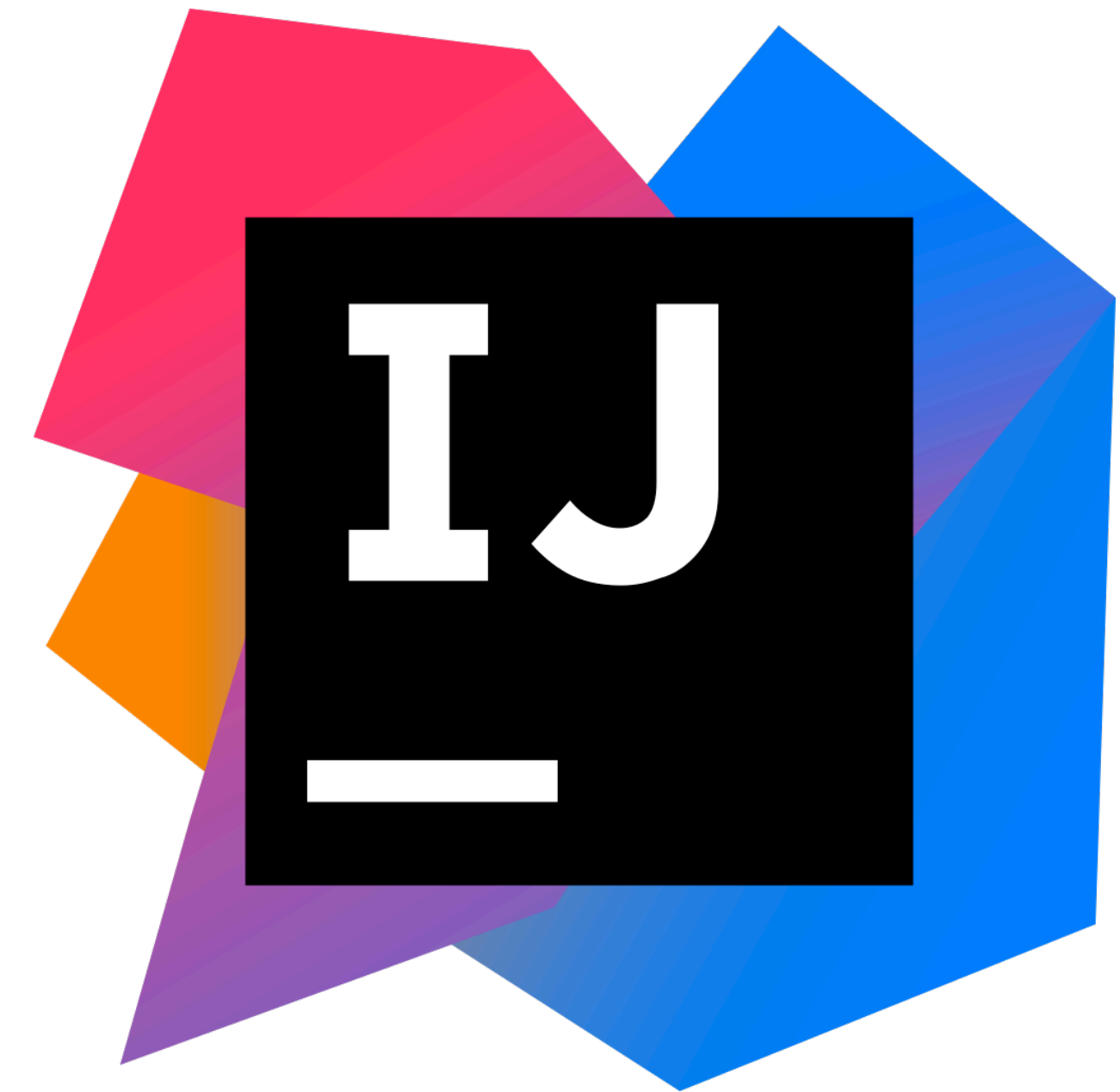
- Gradle and Maven plugins
- Embedded EVM (Hyperledger Besu)
- Embedded Solc + version manager
- Testing framework

CLI

- Project scaffolding

Why IntelliJ?

- Most popular JVM/Android IDE
- Created by JetBrains
- Other leading IDEs PyCharm, Webstorm, etc
- **We want to provide the best possible developer experience on the JVM**



Demo

Andrii Kliui

Proj

W3App [Web3App] ~/projects/wel

> .gradle

> .idea

> build

> gradle

> src

main

java

HelloWorld

kotlin

solididity

test

.gitignore

build.gradle

Dockerfile

gradlew

gradlew.bat

settings.gradle

External Libraries

Scratches and Consoles

Web3App – HelloWorld.sol [Web3App.main]

1

// SPDX-License-Identifier: Apache-2.0

2

pragma solidity 0.7.6;

3

4

contract HelloWorld {

5

string greetingTemplate = "Hello my dear ";

6

string greetingName;

7

string greetingMessage;

8

9

constructor (string memory _greetingName) {

10

greetingName = _greetingName;

11

greetingMessage = string(abi.encodePacked(greetingTemplate, greetingName));

12

13

uint a = 1;

14

uint b = 2;

15

uint result_1 = sum(a,b);

16

17

uint result_2 = sum(b,a);

18

uint c = 3;

19

}

20

21

function sum(uint a, uint b) public view returns (uint sum) {

22

uint localA = a;

23

uint localB = b;

24

25

return localA + localB;

26

}

27

28

}

29

✓ 1

^

↓

Gradle

Roadmap

- ✓ Debugger window
- ✓ Deployment breakpoints
- ✓ Step functionality
- ✓ Simple stack decoding

Support for:

- Advanced stack decoding
- Arbitrary method breakpoints
- Imported contracts

Release on IntelliJ marketplace

Thanks ❤️

Ethereum Foundation

Web3j community (over 150 contributors)

Web3 Labs team

Learn More

 <https://github.com/web3j/Intellij-solidity-debugger>

 web3labs.com

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