

Blockly2Hooks*

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*Original name: Scratch2Hooks

Blockly> <Hooks

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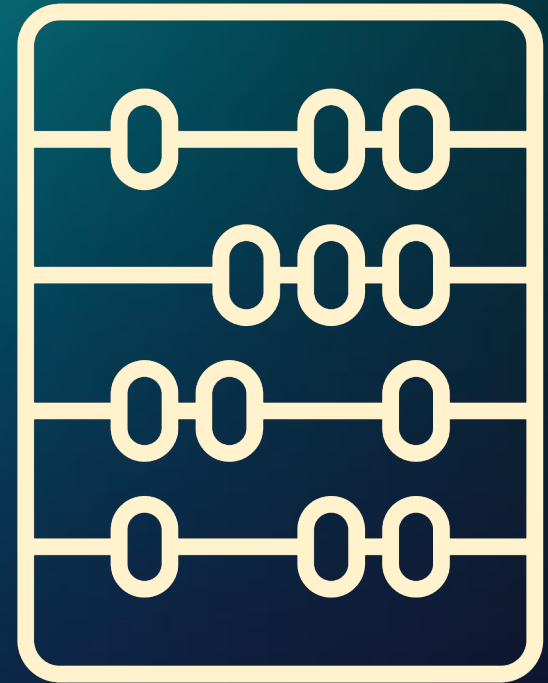
Blockly2Hooks
[PROBLEM TO SOLVE]

- Smart contract programming **learning curve** is not smooth
- For people without **advanced** technical background smart contract is a kind of **mystery**
- We aim to help **teenager, non-technical audience and knowledge seekers** to learn **programming XRPL HOOKS** easily and adopt the technology



[XRPL HOOKS SMART CONTRACT]

- **Hooks** are small, efficient web assembly modules designed specifically for the XRPL.
- **Hooks** can be written in any language (compilable to WebAssembly)
- Typically **Hooks** are written in C.
 - **Good** : very efficient programming language
 - **Bad**: not easy to learn and use for non-developer
- **Hooks** are deliberately not Turing-Complete programs.



Blockly2Hooks [SCRATCH]



- Visual programming language developed at the MIT Media Lab
- Used by thousands of kids worldwide to learn how to program
- Kids share their creations with one another over the Internet.

Blockly2Hooks
[BLOCKLY TO RESCUE]



Blockly

Google's open-source framework.

Visual block-based icons and a drag-drop programming environment.

Transform visual programs into textual codes, e.g., JavaScript, Php, Python, Dart, and Lua

Blockly2Hooks

[BLOCKLY TO RESCUE]

Logic

Loops

Math

Text

Lists

Color

Variables

Functions

set Count to 1

repeat while

Count ≤ 3

do

print "Hello World!"

set Count to Count + 1

Language: JavaScript ▾

var Count;

Count = 1;

while (Count <= 3) {

window.alert('Hello World!');

Count = Count + 1;

}

Blockly2Hooks [OUR SOLUTION]

Develop and
deploy XRPL Hooks
Smart Contracts
using VPL.

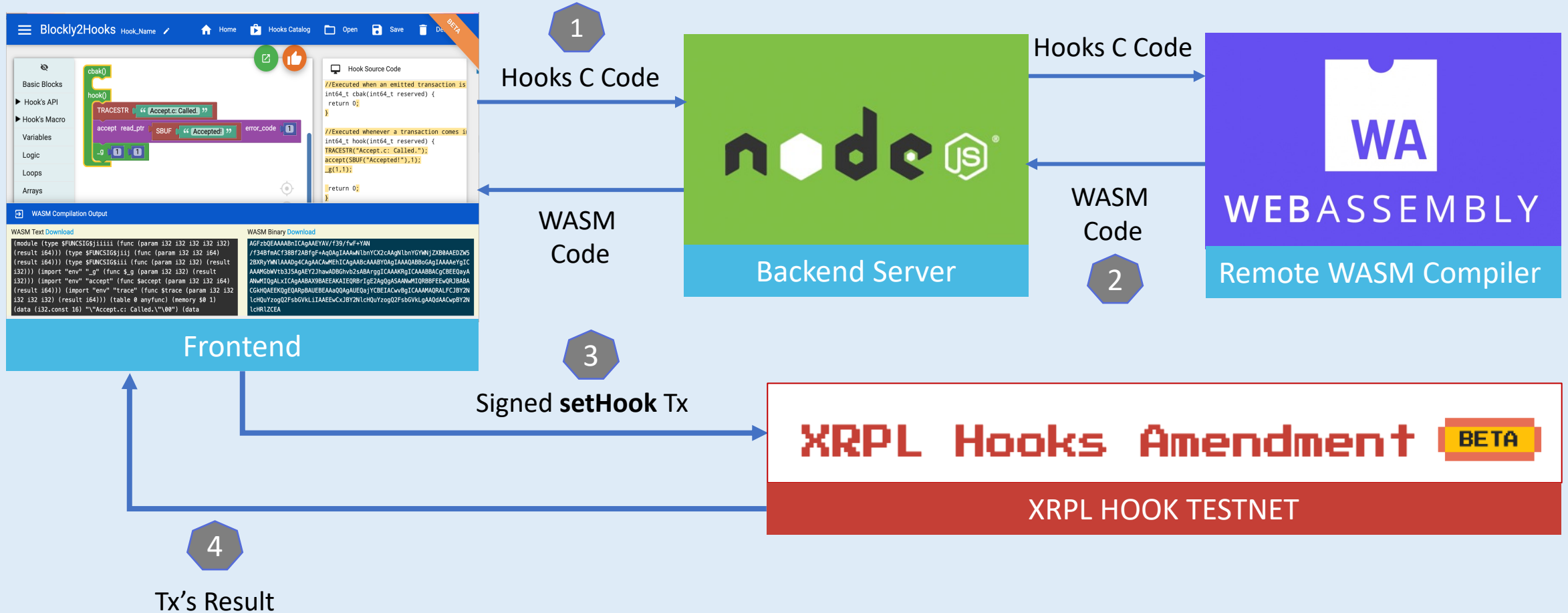
Implement all
XRPL Hooks'
functions as Blocks
using Blockly.

Use Drag and drop
for smart contract
development.

Compile and
publish XRPL
Hooks to the
Testnet or
Mainnet.

Blockly2Hooks

[HOW DOES IT WORK?]



Blockly2Hooks

[PLATFORM BETA VERSION]

Blockly2Hooks

Hook_Name

Home

Hooks Catalog

Open

Save

BETA

Basic Blocks

Hook's API

Hook's Macro

Variables

Logic

Loops

Arrays

Math

cbak()

hook()

TRACESTR "Accept.c: Called."

accept read_ptr SBUF "Accepted!" error_code 1

_g 1 1

Hook Source Code

//Executed when an emitted transaction is su
int64_t cbak(int64_t reserved) {
 return 0;
}

//Executed whenever a transaction comes into
int64_t hook(int64_t reserved) {
 TRACESTR("Accept.c: Called.");
 accept(SBUF("Accepted!"),1);
 _g(1,1);

 return 0;
}

WASM Compilation Output

WASM Text [Download](#)

(module (type \$FUNCSIG\$jiiiii (func (param i32 i32 i32 i32 i32)
(result i64))) (type \$FUNCSIG\$jiiij (func (param i32 i32 i64) (result
i64))) (type \$FUNCSIG\$iii (func (param i32 i32) (result i32)))
(import "env" "_g" (func \$_g (param i32 i32) (result i32))) (import
"env" "accept" (func \$accept (param i32 i32 i64) (result i64)))
(import "env" "trace" (func \$trace (param i32 i32 i32 i32 i32)
(result i64))) (table 0 anyfunc) (memory \$0 1) (data (i32.const 16)
"\Accept.c: Called.\n\00") (data (i32.const 48) "Accept.c:

WASM Binary [Download](#)

AGFzbQEAAAABnICAgAAEYAV/f39/fwF+YAN
/f34BfmACf38Bf2ABfgF+AQ0AgIAAAWlnbYCX2cAAgNlnbYGYWNjZXB0AAEDZW52BXRy
YWNlAAADg4CAGAACAwMEhICAgAABcAAABY0AgIAAAQABBoGAgIAAAAEYgICAAAMGbWVtb
3J5AgAEY2JhawADBghvb2sABARggICAAAKRgICAAABBACgCBEEQayAANwMIQgALxICAgA
ABAX9BAEEAKAIEQRBrIge2AgQgASAAWMIQRBBFEewQRJBABACGkHQAEKQgEQARpBAUE
BEAAaQQAgAUEQajYCBElACwvBgICAAAMAQRALFCJBY2NlcHQyYzZogQ2FsbGVkLiIAAEEw
CxJBY2NlcHQyYzZogQ2FsbGVkLgAAQdAACwpBY2NlcHRlZCEA

Blockly2Hooks [CONCLUSION]

- The platform released as **open-source** project
- GitHub Link:
<https://github.com/wshbair/blockly2hooks>
- We have integrated some examples Hooks for testing and looking forward to add more
- We are looking for feedback from Ripple/Hooks team to validate our output.



Blockly2Hooks [OUR TEAM]



Wazen Shbair
Blockchain Architect@VNX
Team Leader
Blockchain & NodeJS
expert



Lucian Andrei Trestioreanu
Doctoral researcher @SnT
Developer
Senior Game developer



Radu State
Professor @SnT
Team Mentor
Scientific and technical
Advisor

TALK IS CHEAP
SHOW ME THE
CODE

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