

Inverse Shunting Yard Algorithm for Porting FORTH to other programming languages as host environments

Phoscript is a FORTH dialect where various FORTH constructs are ported to other programming languages as host environments, based on Inverse Shunting Yard Algorithm, reducing the barriers of entry to learn FORTH for programmers of all ages.

Further, high level abstraction of source code using Phoscript generalises Merkle trees to general purpose digital contracts, enabling unprecedented large scale collaboration for free software projects, and novel mechanisms for collecting royalties.

Bidirectional Shunting Yard Algorithm (BiSYA)

Infix: 3 + 4
C, C++
PHP, Python
Java,
JavaScript
.....

Shunting Yard
Algorithm (SYA)

Inverse Shunting
Yard Algorithm
(ISYA)

Reverse
Polish
Notation
3 4 +
Forth
Phoscript
 $\Phi\Omega\Sigma$

- I. Phoscript: Inverse Shunting Yard Algorithm
- II. Hyperhash Graph: Homoiconicity in Metaprogramming & Cryptography
- III. Examples of Omni*Web
- IV. Working with other FORTH Projects

3 + 4

|

+ 4

|
3

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4

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3

+

|
4
—
3

|
7
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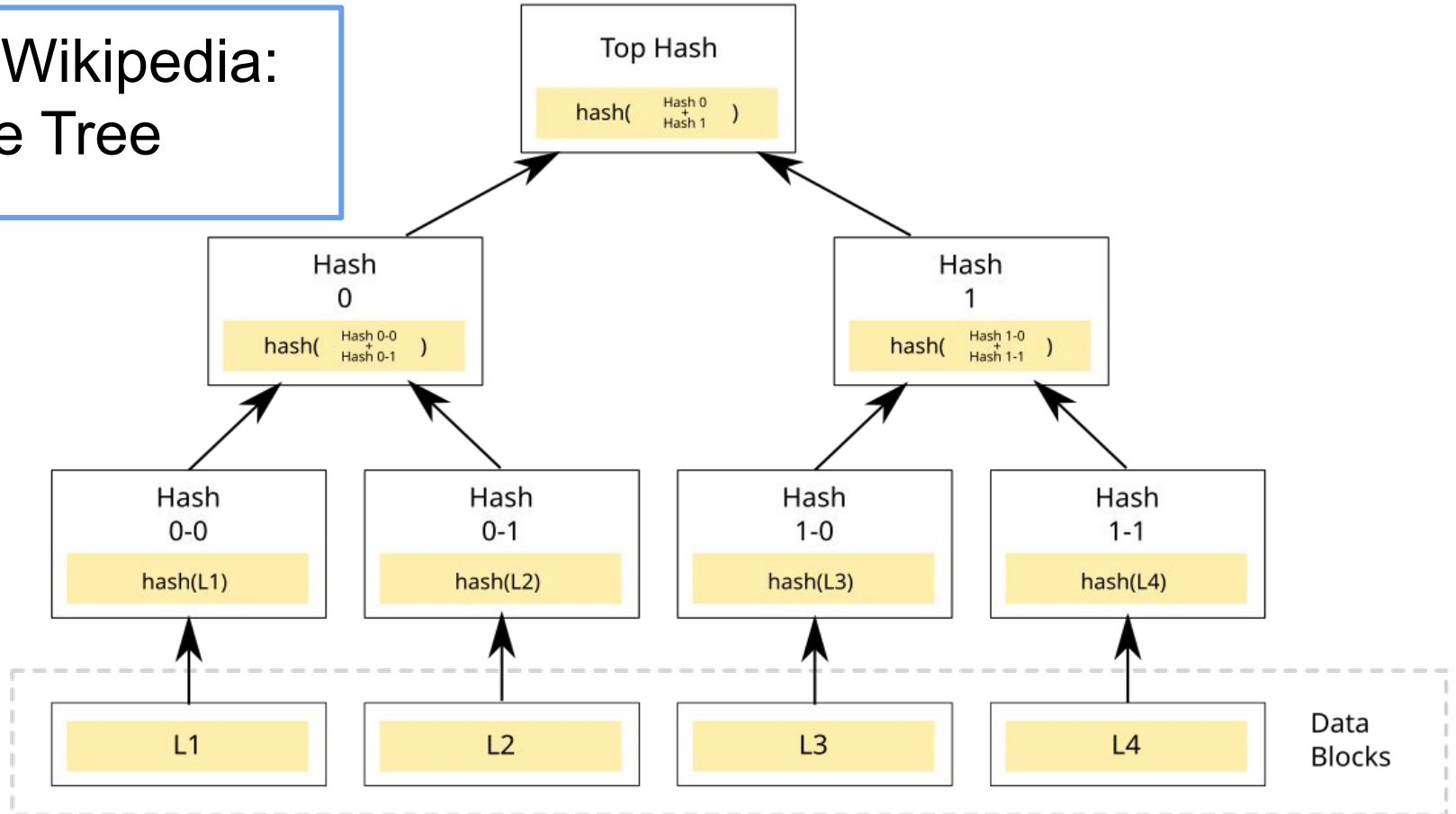
Operator

Operand

Data Stack

Dijkstra's Shunting
Yard Algorithm (SYA)

From Wikipedia: Merkle Tree



Omni* Omnihash

Omnihash GenKeys Save

Load Keypair
Browse... No file selected.

Your Hash is
GrSvYg4rjA==
Your Parent Hash is



```
{"h":"GrSvYg4rjA==","t":"2024-07-25  
T08:47:29.227Z"}
```

On this day
Thu Jul 25 2024 16:47:29

<https://omnixtar.github.io/h/>

```
1 <html>
2   <!--
3   Omni* Hash Contract
4   - On the zSeparation of Disclosure and Royalties of the Source Code
5   July 21, 2024
6
7   1. You, a human agent of a company or government agency, may read the source code without
8       making payments to the author or authors, but if you execute this program on behalf of
9       your company or agency for commercial purposes, we reserve the rights to claim royalties
10      from you or your company or agency.
11   2. Your copy of source code shall be attached with at least one Omni* Hash Contract bearing the
12      Omnihash
13      of a Omni* Agent and your own Omnihash, to authorise you the permissions to use or modify said
14      source code,
15      otherwise you shall pay maximum penalties allowed by a legal court of your jurisdiction,
16      for the damages you have incurred for deploying the source code pertaining to clause (1).
17   -->
18 <head>
19   <meta name="viewport" content="width=device-width, initial-scale=1">
20   <script src="https://netdna.bootstrapcdn.com/bootstrap/3.1.1/js/bootstrap.min.js"></script>
21   <link href="https://netdna.bootstrapcdn.com/bootstrap/3.1.1/css/bootstrap.min.css"
22       rel="stylesheet" type="text/css">
23 </head>
24 <body>
25
26   <script src="./Phos/libphos.js" type="module"></script>
27   <script type="text/javascript" src="./jsencrypt.min.js"></script>
28   <script type="text/javascript" src="jquery.min.js"></script>
29   <script type="text/javascript" src="qrcode.js"></script>
30   <script type="text/javascript" src="aes.js"></script>
```



Code

Blame

Raw



```
55     function Phos() {
384         function f_ms() {
639
860     //     this.FGL = async function ($a) {
861     ▾     this.FGL = function ($a) {
862         s0 = preg_replace('/s+/', ' ', $a);
863         var $a = explode(' ', trim(s0));
864         var $SS = [], $xl = 0;
865         var $xk = 0;
866         var $xs = $a;
867         var $xl = count($a);
868         var $vk = $xk;
869         var $Z = $xl;
870         S.push($vk);
871         var $t = array_pop(S);
872         var $CC = $t[0];
873         S0.skip = 0;
```


Code

Blame

Raw



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869         var $Z = $xl;
870         S.push($vk);
871         var $t = array_pop(S);
872         var $CC = $t[0];
873         S0.skip = 0;
```

**Code**

Blame

Raw



```
861      this.FGL = function ($a) {  
    }  
    var $SL = end(end(S0.CDW));  
    do {  
      $vk = $xk;  
      S[0].xk = $xk;  
      S0.tn = $vk;  
      S0.cda[1] = $vk;  
      $v = trim($xs[$xk]);  
      if (in_array($v, array_keys($CDW))) {  
        var $WA = $CDW[$v];  
        if (end($WA) == ';')  
          array_pop($WA);  
        S0.CDW.push([  
          $v,  
          $vk,  
          $v
```



Code

Blame

Raw



861

```
this.FGL = function ($a) {  
    } while (1);  
} else if ($v[$l - 1] == ':') {  
    $l = strlen($v);  
    var $fn = substr($v, 0, $l - 1);  
    if ($.function_exists('fgl_' + $fn)) {  
        eval('fgl_' + $fn + '()');  
    } else if ($.function_exists('f_' + $fn)) {  
        // console.log(' 1504 f_' + $fn + ' function exists ' + VM);  
        eval('f_' + $fn + '(\'' + VM + '\')');  
    } else if (eval('typeof this.fgl_' + $fn) === 'function') {  
        eval('this.fgl_' + $fn + '()');  
    } else if (eval('typeof this.f_' + $fn) === 'function') {  
        console.log('this.f_' + $fn + ' function exists ');  
        eval('this.f_' + $fn + '()');  
        if (is_array(end(S))) {  
            var $va = end(S);
```

Code

Blame

Raw



861

```
this.FGL = function ($a) {  
    console.log(' < in + > ' + $sa + ' ' + $sb + ' ' + ($sa + $sb));  
    S.push(parseInt($sb) + parseInt($sa));  
} else if ($v == '.') {  
    array_pop(S);  
} else {  
    if ($v == '===') {  
        S.push(array_pop(S) === array_pop(S));  
    } else {  
        S.push($v);  
    }  
}  
}  
}  
}  
}  
}
```

More about inverse shunting yard algorithm from video:

<https://www.youtube.com/watch?v=mYjKS0KiJVg&t=18s>

Will show Phoscript examples in other programming languages and environments in future:

- PHP, Python, Java (Android), C++, etc and
- develop new language API If anyone is willing to collaborate e.g. Rust, Golang, Haskell etc.
- Abstract mathematics: <https://github.com/udexon/SymForth>
- Fire4x: FORTH in Firefox browser



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0:28 / 8:25



Bidirectional Shunting Yard Algorithm (BISYA) and Sandwich API Model: Unifying Programming Languages

All

Watched



MI4 Metaprogramming in Forth
47 subscribers

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3



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720



JLHTTP in BiglyBT BitTorrent
Client



Omni*Web::OXW

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Resources

<https://omnixtar.github.io/docs>

- *Bidirectional Shunting Yard Algorithm (BISYA) and Sandwich API Model: Unifying Programming Languages*
- *Forth Day 2022 -- Less is Mo(o)re: Beyond FORTH – Liang Ng and Demitri Peynado*

Omni*Web::OXW is an initiative to build a Truly Decentralised Web, owned and operated by individual users and free software programmers.

OXW is built using reliable and transparent open source software projects that began in 2003 or earlier.

1. The first important technology is [I2P](#), which we prefer to rebrand as "Internationale Internet Proletariat", that enables ANY personal computer or mobile phone to act as WEB SERVER for FREE, without



More about inverse shunting yard algorithm from video:

<https://www.youtube.com/watch?v=mYjKS0KiJVg&t=18s>

TODO: links to videos PDF etc.

this slide as PDF, url will be posted after
this talk has been uploaded on YouTube

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Java,

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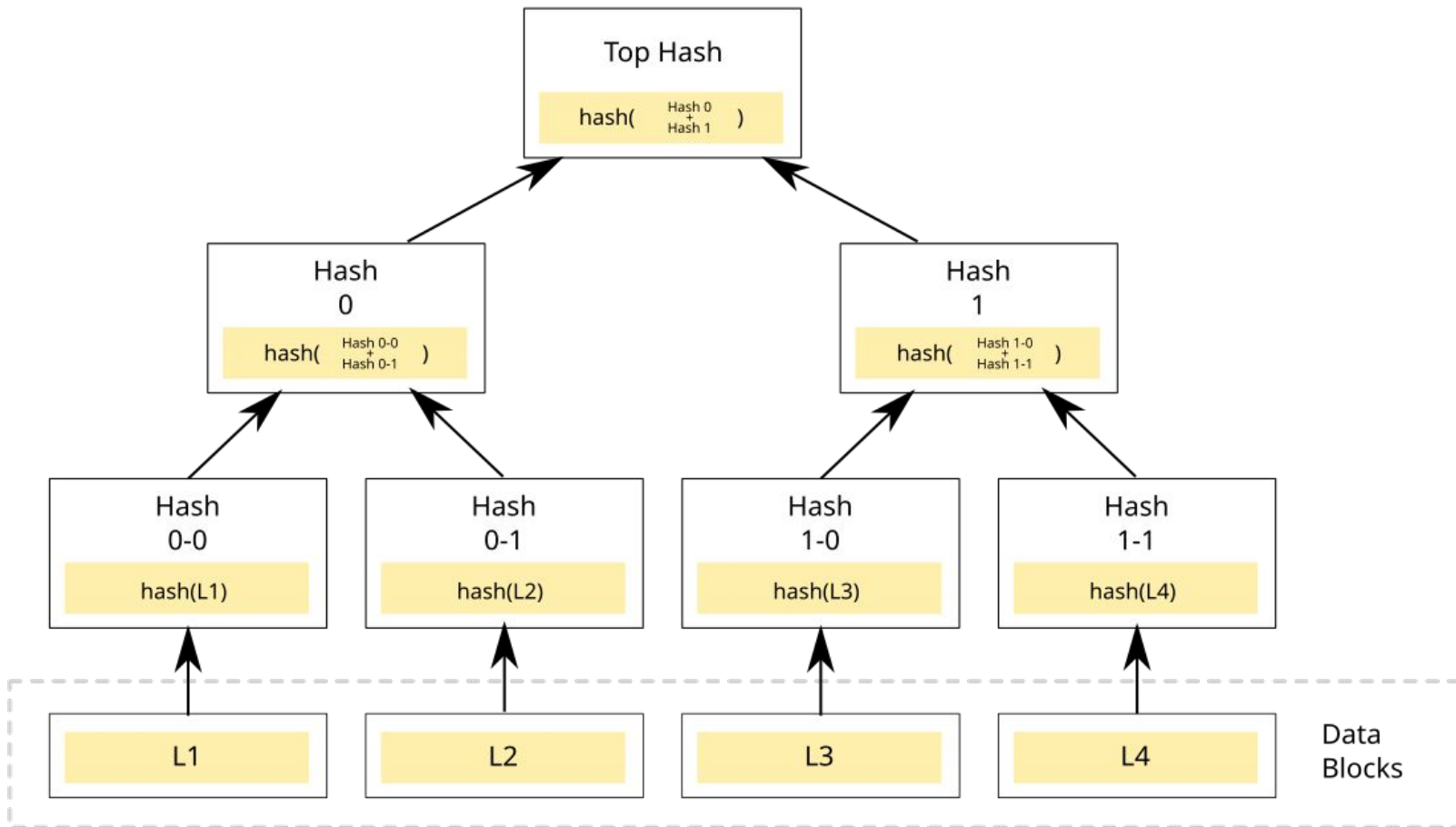
.....

Shunting Yard
Algorithm (SYA)

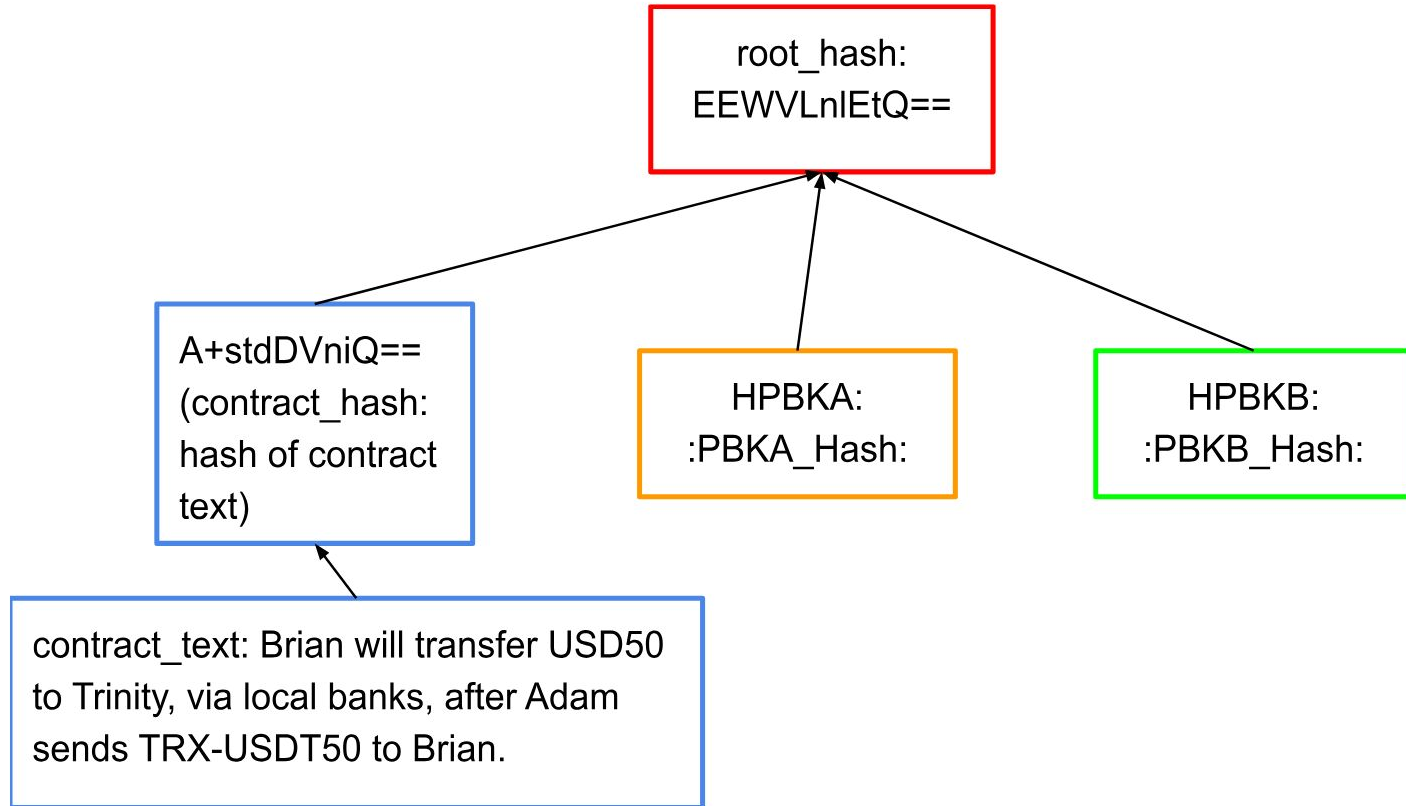
Inverse Shunting
Yard Algorithm
(ISYA)

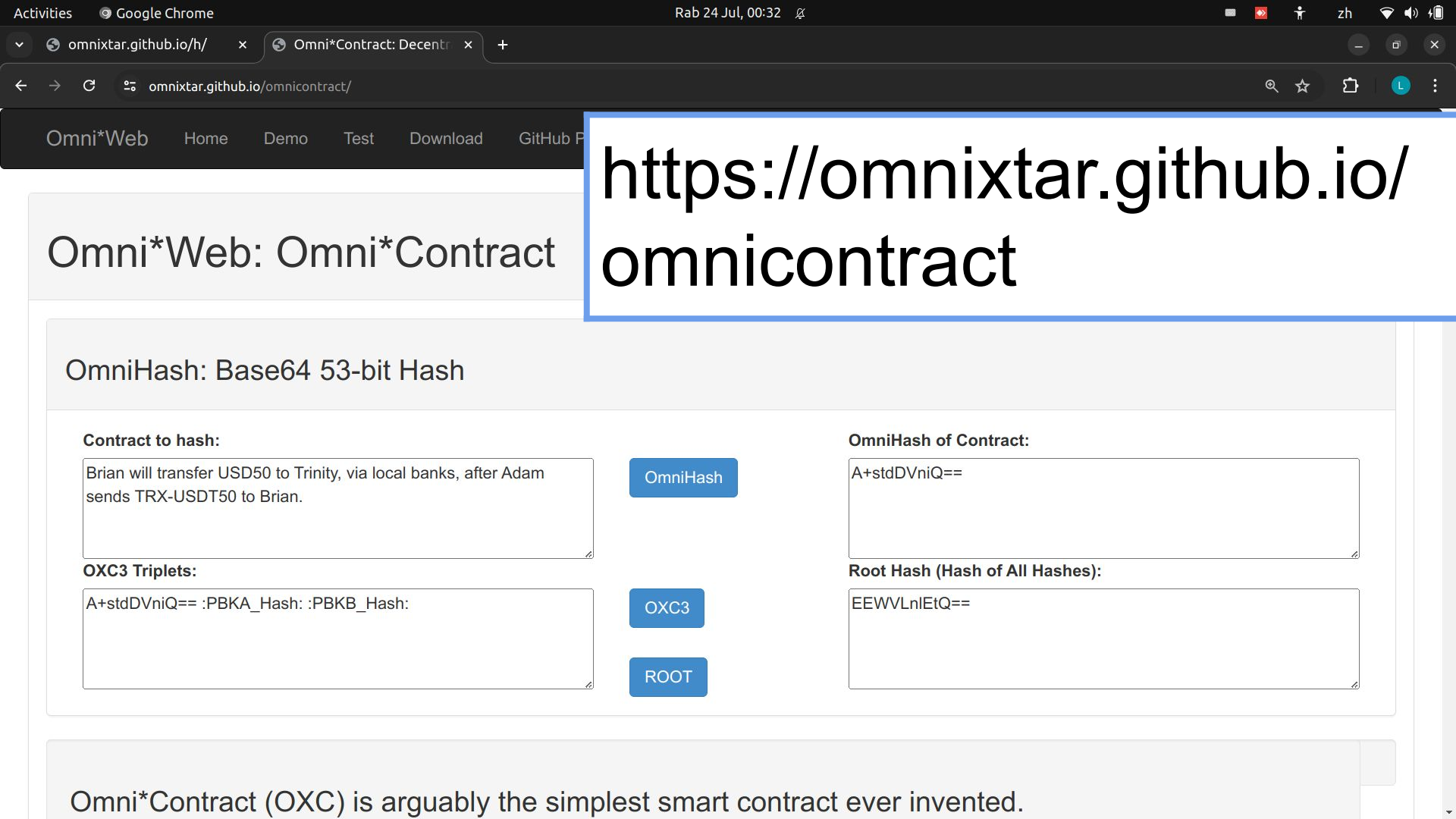
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Let us visualise the Omni*Contract above and compare it with a typical Merkle tree.





<https://omnixtar.github.io/omnicontract>

Omni*Web: Omni*Contract

OmniHash: Base64 53-bit Hash

Contract to hash:

Brian will transfer USD50 to Trinity, via local banks, after Adam sends TRX-USDT50 to Brian.

OmniHash

OmniHash of Contract:

A+stdDVniQ==

OXC3 Triplets:

A+stdDVniQ== :PBKA_Hash: :PBKB_Hash:

OXC3

Root Hash (Hash of All Hashes):

EEWVlnEtQ==

ROOT

Omni*Contract (OXC) is arguably the simplest smart contract ever invented.

Omnihash: 53 bit JavaScript Integer
(mantissa part of 64 bit IEEE floating
point number), encoded as base64
string.

What does hyperhash graph have to do with FORTH or Phoscript?

Consider this problem:

- Programmer A wrote an algorithm in Phoscript, whose colon definition is A_ACTION_X.
- Programmer B wrote an algorithm in Phoscript, which makes use of A_ACTION_X, and its colon definition is B_ACTION_Y.
- How would A and B generate a digital contract to include necessary terms such that B may pay A a certain amount of money on some conditions?

Solution: 2 level Hyperhash Graph (Omni*Contract).



Code

Blame

Raw



```
30     S0.dlb.DSC[2].style.bottom='150px'
31
32     // chris browser 2021-2-20 2255
33     f(': do_sign awa: im_pbk ss: mk_sign ;')
34     f(': im_pbk . dup: js: jd: msg ix: awa: impbk: ss: ;')
35     f(': mk_sign awa: sign_kp: rsa_sign ;')
36     f(': ecr_sig 5 pick: s2ab: 1 pick: 1 pick: catab: 4 pick: 1 pick: awa: ecr_t: ab_scj ;')
37     f(': rsa_sign saveks: privateKey ix: dsc_sign geid: value: awa: sign: do_scj ;')
38     f(': do_scj awa: ecr_sig ss: ;')
39     f(': ab_scj ab2s: btoa: awa: scj_d: u_chat ;') // scj_d is async!!
40     f(': u_chat 10 pick: 1 pick: CHAT: ;')
41     f(': a_scj dsc_ecr geid: value: 3 pick: dup: awa: do_sign ss: ;') // dsc_ecr is DOM id!!
42     f(': x_dsc a_scj ;')
43
44     // DSC uuid
45     f(': u_do_sign awa: im_pbk ss: u_mk_sign ;')
46     f(': u_mk_sign awa: sign_kp: u_rsa_sign ;')
```


level: 1

func_name: rsa_sign

func_def: saveks: privateKey ix: dsc_sign geid: value: awa: sign: do_scj

(Get func_hash)

root_hash: hash(func_hash HPBK_A HPBK_B) => EyWPKqyKOg==

Contract to hash:

```
func_name: rsa_sign  
func_def: saveks: privateKey ix: dsc_sign geid: value: awa: sign:  
do_scj
```

OmniHash

OmniHash of Contract:

DsdRLPyLcw==

OXC3 Triplets:

DsdRLPyLcw== :PBKA_Hash: :PBKB_Hash:

OXC3

Root Hash (Hash of All Hashes):

EyWPKqyKOg==

ROOT

level: 2

contract_text: B to pay A a certain amount of money on some conditions for the rights to use code in contract EyWPKqyKOg== .

contract_hash: HKpOER8ZRQ==

(Get root_hash)

root_hash: hash(func_hash HPBK_A HPBK_B) => EMwjbLpL7A==

Contract to hash:

B to pay A a certain amount of money on some conditions for the rights to use code in contract EyWPKqyKOg== .

OmniHash

OmniHash of Contract:

HKpOER8ZRQ==

OXC3 Triplets:

HKpOER8ZRQ== :PBKA_Hash: :PBKB_Hash:

OXC3

Root Hash (Hash of All Hashes)

EMwjbLpL7A==

Omni*Web 万能网
Decentralised 去中心化
Cloud 云端 &
Metaverse 元宇宙

弗式虚拟机
Phos VM

自家云
Garage Cloud

万能哈希码
Omnihash

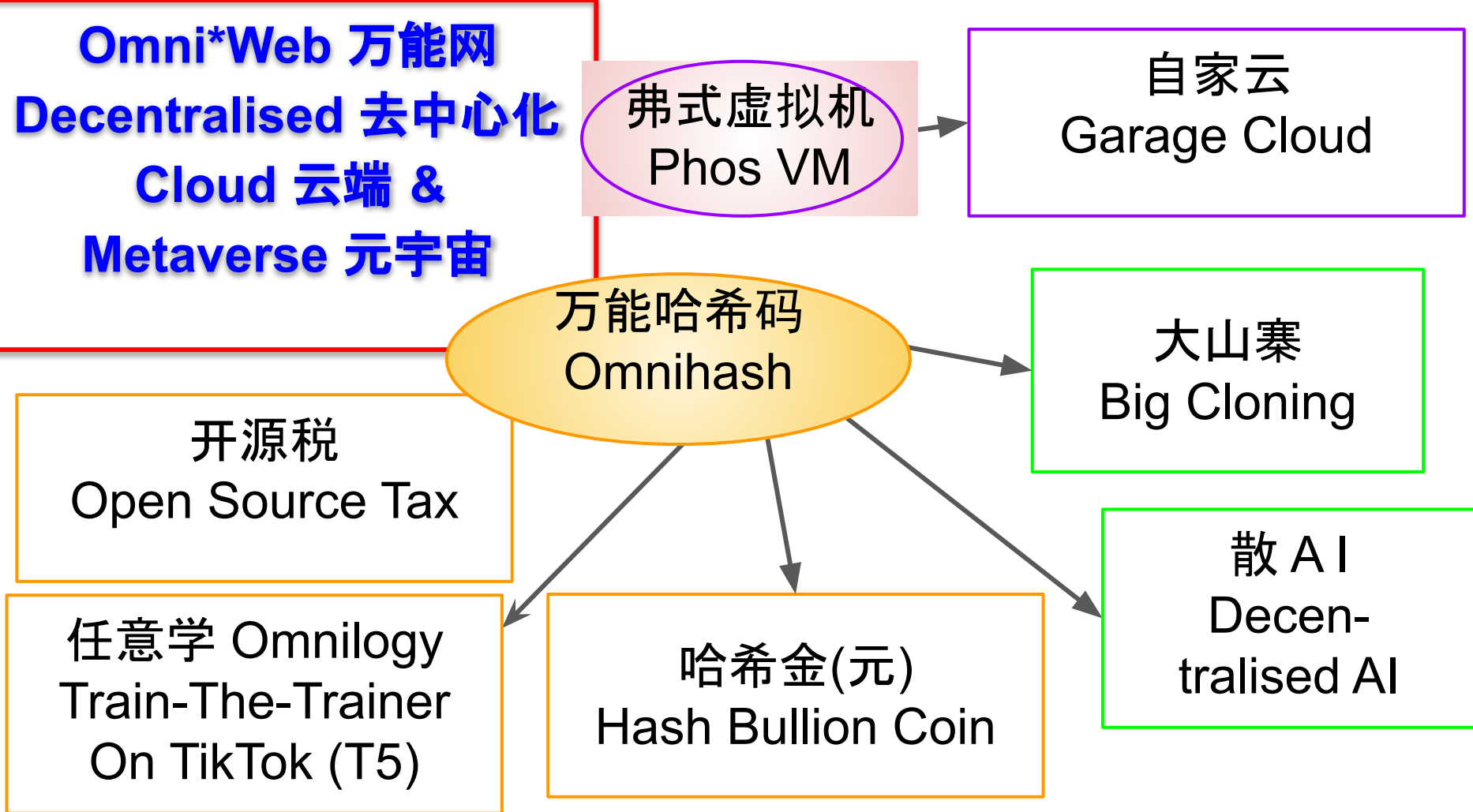
大山寨
Big Cloning

开源税
Open Source Tax

任意学 Omnilogy
Train-The-Trainer
On TikTok (T5)

哈希金(元)
Hash Bullion Coin

散 AI
Decen-
tralised AI



Omni* Omnihash

Omnihash

GenKeys

Save

Load Keypair

Choose File

No file chosen

Omni*Web: Omni*Contract

OmniHash: Base64 53-bit Hash

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EEWVLnIEtQ==

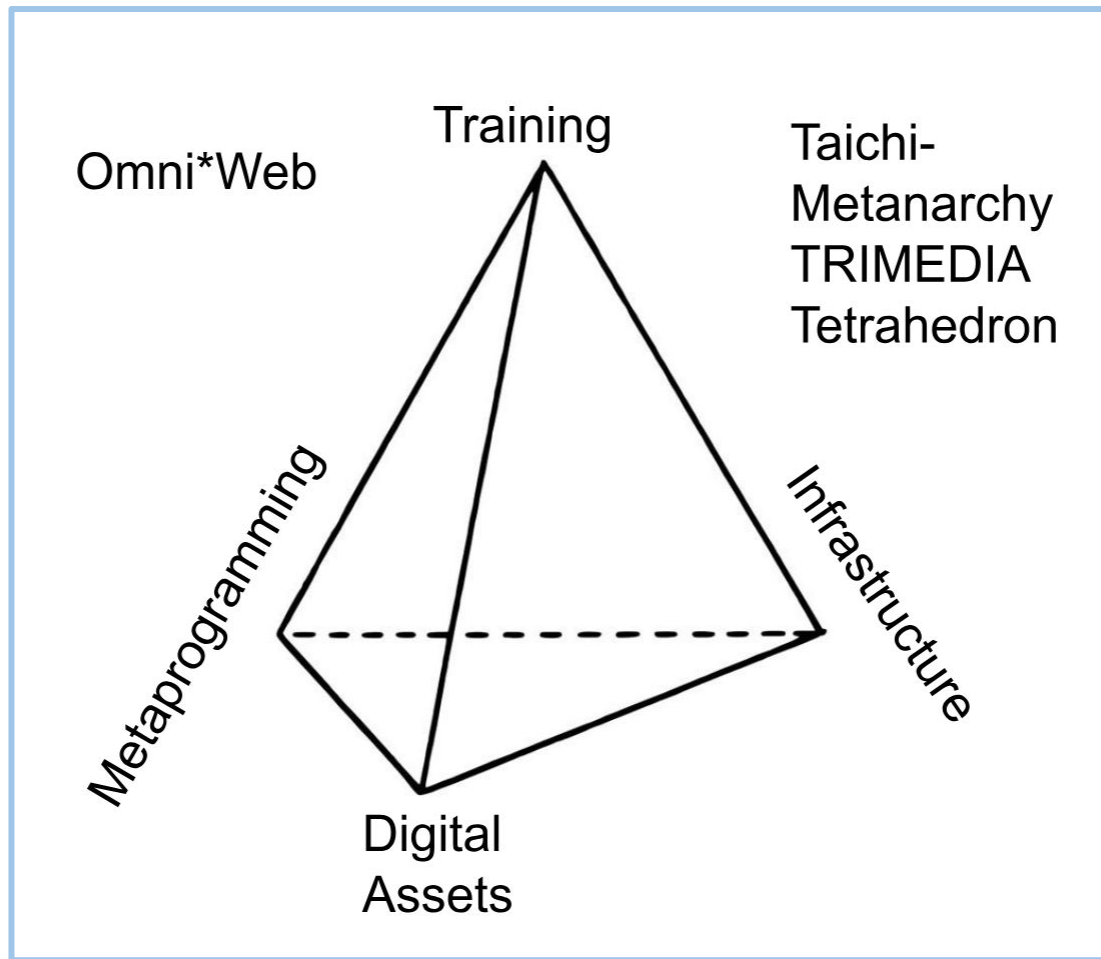
ROOT

Omni*Contract (OXC) is arguably the simplest smart contract ever invented.

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Part III

- Components of Omni*Web
- “Omni”, meaning “all” in Latin, is the opposite of UNIX
- The star * character also means “all” in UNIX environments.
- Omni* is both a double pun as well as a recursive acronym, in the long tradition of precedents such as GNU and PHP.
- Most importantly, * character cannot be copyrighted.



FileViewCommunityToolsTorrentHelp

Open TorrentsFind Torrents...

My Torrents

Library

- New
- Audio
- Dev
- Disc Images
- Documents
- Video
- Downloading...
- Archived Downloads
- All Peers
- Tags Overview
- Video Interview Candidate #180
- Free Full HD Wallpapers
- icons

BiglyBT

- Notifications

Content Discovery

- Chat Overview

Subscriptions

- IA Open Office 2

Devices

- In Progress
- UPnP Android/5.1.1
- Kodi (My-MacBook-Pro.local)

Plugins & Extras

- VPN Helper for PIA

991 items: 6 active, 314 queued (Search results: 17, 0 active)

tag:linux

Order	Name	Size	Downloaded	Done	Status	Seeds	Peers	Down Speed	Up Speed	ETA	Share Ratio	Tags
1	Fedora-14-Beta-i386-DVD	3.36 GB	3.37 GB	0.0%	Stopped						1.992	An extre...
2	redhat	7.22 GB	7.54 GB	3.2%	Stopped						7.419	Cute, Disc...

OrderSeeding RankNameCompleted OnSizeUploadedStatusPeersUp SpeedShare RatioTagsNetworksRating

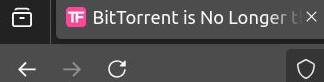
1	Waiting	Fedora-14-x86_64-DVD	'17/03/17	3.27 GB	4.50 GB	Queued			1.231	Disc Images, linux	Public,I2P	☆☆☆☆☆
6	Waiting	FreeBSD-7.3-RELEASE-i386-all	'11/01/05	3.43 GB	631.97 MB	Queued			0.082	Deep Pink, Disc I...	Public,I2P	☆☆☆☆☆
7		8.0-RELEASE-i386-all	'10/10/21	3.65 GB	14.31 GB	Stopped			1.992	A very long tag d...	Public,I2P	☆☆☆☆☆
8	Waiting	ubuntu-9.10-alternate-amd64.iso	'10/10/15	696.31 MB	1.95 GB	Queued			1.435	Disc Images, linux	Public,I2P	☆☆☆☆☆
9	Waiting	Fedora-13-i386-DVD	'10/06/22	3.05 GB	5.07 GB	Queued			0.831	Disc Images, Fed...	Public,I2P	☆☆☆☆☆
10	Waiting	Fedora-11-i386-DVD	'10/06/23	3.43 GB	24.00 GB	Queued			3.493	Disc Images, Fed...	Public,I2P	☆☆☆☆☆
11		ubuntu-16.04.1-desktop-amd64.iso	'16/10/05	1.40 GB	836.56 MB	Stopped			0.579	linux	Public,I2P	☆☆☆☆☆
12		ubuntu-8.04.4-alternate-i386.iso	'10/10/19	697.17 MB	3.57 GB	Stopped			2.622	Disc Images, linux	Public	☆☆☆☆☆
30	Waiting	Fedora-Live-Workstation-x86_64-...	'15/10/09	1.36 GB	4.27 GB	Queued			3.122	Disc Images, Fed...	Public,I2P	☆☆☆☆☆

GeneralSourcesPeersSwarmPiecesPiece MapFilesTagsPrivacyConsoleChatDiscoveries

Hide files not selected for download7 itemsSearch for files...

Name	Size	Done	%	First piece #	# of pieces	Remaining	Pieces	Mode	Priority
installationx64.ISO	3.30 GB	136.00 MB	4.0%	718	848			Read	Normal
installationx32.ISO	2.80 GB	80.00 MB	2.7%	0	719			Read	Normal
supplementx64.ISO	609.79 MB	5.85 MB	0.9%	1719	153			Read	Normal
supplementx32.ISO	427.63 MB	10.14 MB	2.3%	1612	108			Read	Normal
rescuex64.ISO	95.51 MB	5.00 MB	5.2%	1588	25			Read	Normal
rescuex32.ISO	94.24 MB	2.99 MB	3.1%	1565	24			Read	Do not downlo...
Torrent_downloaded_from_Demonoid.com.txt	47 B	0 B	0.0%	1871	1			Read	Do not downlo...

Respect IPmDHTRoutingNAT664,254 users0 B/s[65K] 0 B/s1



BitTorrent is No Longer the 'King' of Upstream Internet Traffic

March 15, 2024 by Ernesto Van der Sar

stream
As the
traffic.
still accounted for the [largest share of global upstream Internet traffic](#).

The main question was how long this would last. In 2013, BitTorrent still accounted for roughly a [third of all upload traffic](#). It remained the [dominant](#) upload source in the years that followed, but trended downwards, reaching a [new low of 10%](#) two years ago.

BitTorrent Dethroned

This week, Canadian broadband management company Sandvine released its latest [Global Internet Phenomena Report](#) which makes it clear that BitTorrent no longer leads any charts.

The latest data show that video and social media are the leading drivers of downstream traffic, accounting for more than half of all fixed access and mobile data worldwide. Needless to say, BitTorrent is nowhere to

Activities

AnyDesk

Sab 13 Apr, 11:29

AnyDesk

768086256

Free license (non-professional use). Start trial license.

Activities

BiglyBT

Sab 13 Apr, 11:29

File View Community Tools Window Help

Open Torrents

Find Torrents...

Dashboard

Decentralized Chat

Friends

My Torrents

Library

New

Active

Inactive

Paused

BiglyBT

Notifications

Content Discovery

Swarm Discover...

Subscriptions

Chat Overview

Devices

In Progress

Disk

Internet

Plugins & Extras

Friends

Use independent windows for pop-out

Force pop-out windows to the side bar

Use the IP Filter to filter messages and

Notifications

Play a sound when a message is received

Flash status bar icon when message wait

Private Chat

Enable private chat

Only accept chats from pinned participants

Integration

Make my friend key automatically available

Consider setting up your public profile (see

Channel Restore

Previously exported backup data

Advanced

Share anonymous torrent and chat destination

Unfortunately using separate destinations is currently unreliable

Test

Public beta chat

Anonymous beta chat (I2P)

Create/join custom channel: key 224455

Anon - '224455'

DHT=0, Nodes=1/1/0, Requests=0.2/0.2

Search...

Help

01:16 E6A59

ECHO {"a":"b","k":"j","d":"c","n":"m","dbl":"13332.0"}

09:34 E6A59

ECHO {"a":"b","k":"j","d":"c","n":"m","dbl":"13332.0"}

01:53 BDF12C

OMNI jo: gc: dup: hm: b a put: c d put: j k put: m n put: 7777 2222 + d2s: dbl put: je:

01:53 E6A59

ECHO {"a":"b","k":"j","d":"c","n":"m","dbl":"9999.0"}

09:34 E6A59

ECHO {"a":"b","k":"j","d":"c","n":"m","dbl":"9999.0"}

04:12 BDF12C

OMNI jo: gc: dup: hm: b a put: c d put: j k put: m n put: 7777 2266 + d2s: dbl put: je:

04:12 E6A59

ECHO {"a":"b","k":"j","d":"c","n":"m","dbl":"10043.0"}

09:34 E6A59

ECHO {"a":"b","k":"j","d":"c","n":"m","dbl":"10043.0"}

09:19 BDF12C

OMNI jo: gc: dup: hm: b a put: c d put: j k put: m n put: 1199 2266 + d2s: dbl put: je:

09:21 E6A59

ECHO {"a":"b","k":"j","d":"c","n":"m","dbl":"3465.0"}

09:34 E6A59

ECHO {"a":"b","k":"j","d":"c","n":"m","dbl":"3465.0"}

09:22 BDF12C

OMNI jo: gc: dup: hm: b a put: c d put: j k put: m n put: 1199 220066 + d2s: dbl put: je:

09:22 E6A59

ECHO {"a":"b","k":"j","d":"c","n":"m","dbl":"221265.0"}

09:34 E6A59

ECHO {"a":"b","k":"j","d":"c","n":"m","dbl":"221265.0"}

09:34 BDF12C

OMNI jo: gc: dup: hm: b a put: c d put: j k put: m n put: 1199 2200 + d2s: dbl put: je:

09:34 E6A59

ECHO {"a":"b","k":"j","d":"c","n":"m","dbl":"3399.0"}

11:27 BDF12C

OMNI jo: gc: dup: hm: b a put: c d put: j k put: m n put: 1126 2200 + d2s: dbl put: je:

11:27 E6A59

ECHO {"a":"b","k":"j","d":"c","n":"m","dbl":"3326.0"}

OMNI jo: gc: dup: hm: b a put: c d put: j k put: m n put: 1129 2200 + d2s: dbl put: je:

Nick BDF12C

Shared

Online: 1, Posted: 2

Friends

Name

#

Fr

BDF12C

10

E6A59

19

Please visit here for details

Config

ests=0.2/0.2, refs=3: '224455'

d put: j k put: m n put: 7777 5555 + d2s: dbl put: je:

:"m","dbl":"13332.0"}

:"m","dbl":"13332.0"}

d put: j k put: m n put: 7777 2222 + d2s: dbl put: je:

:"m","dbl":"9999.0"}

:"m","dbl":"9999.0"}

d put: j k put: m n put: 7777 2266 + d2s: dbl put: je:

:"m","dbl":"10043.0"}

:"m","dbl":"10043.0"}

d put: j k put: m n put: 1199 2266 + d2s: dbl put: je:

:"m","dbl":"3465.0"}

:"m","dbl":"3465.0"}

d put: j k put: m n put: 1199 220066 + d2s: dbl put: je:

:"m","dbl":"221265.0"}

ECHO {"a":"b","k":"j","d":"c","n":"m","dbl":"221265.0"}

09:34 BDF12C

OMNI jo: gc: dup: hm: b a put: c d put: j k put: m n put: 1199 2200 + d2s: dbl put: je:

09:34 E6A59

ECHO {"a":"b","k":"j","d":"c","n":"m","dbl":"3399.0"}

11:27 BDF12C

OMNI jo: gc: dup: hm: b a put: c d put: j k put: m n put: 1126 2200 + d2s: dbl put: je:

11:27 E6A59

ECHO {"a":"b","k":"j","d":"c","n":"m","dbl":"3326.0"}

BiglyBT Beta (3.5.0.1_B01)

AnyDesk

768086256

768086256

Free license (non-professional use). Start trial license.

Activities BiglyBT

Sab 13 Apr, 11:29

zh

Free license (non-professional use). Start trial license.

File View Community Tools Window Help

Open Torrents Find Torrents...

Dashboard

1 Decentralized Chat Friends

My Torrents

Library 0

New x

Active x 0

Inactive x 0

Paused x 0

BiglyBT

Notifications

Content Discovery

Swarm Discover... x

Subscriptions x

Chat Overview x 3

Devices

Turn On

In Progress

Disk

Internet

Plugins & Extras

Friends x

Use independent windows for pop-out

Force pop-out windows to the side bar

Use the IP Filter to filter messages and

Play a sound when a message is received

Flash status bar icon when message wait

Private Chat

Enable private chat

Only accept chats from pinned particip

Integration

Make my friend key automatically availa

Consider setting up your public profile (see

Channel Restore

Previously exported backup data

Advanced

Share anonymous torrent and chat dest

Unfortunately using separate destinati

Test

Public beta chat Open

Anonymous beta chat (i2P) Open

Create/join custom channel: key 224455

Anon - '224455'

DHT=0, Nodes=1/1/0, Requests=0.2/0.2

Search...

Help

Nick BDF12C Shared

Online: 1, Posted: 2 Friends

Name	#	Fr
BDF12C	10	
EE6A59	19	

[01:16] EE6A59
ECHO ("a":"b","k":"j","d":"c","n":"m","dbl":"13332.0")
[09:34] EE6A59
ECHO ("a":"b","k":"j","d":"c","n":"m","dbl":"13332.0")
[01:53] BDF12C
OMNI jo: gc: dup: hm: b a put: c d put: j k put: m n put: 7777 2222 + d2s: dbl put: je:
[01:53] EE6A59
ECHO ("a":"b","k":"j","d":"c","n":"m","dbl":"9999.0")
[09:34] EE6A59
ECHO ("a":"b","k":"j","d":"c","n":"m","dbl":"9999.0")
[04:12] BDF12C
OMNI jo: gc: dup: hm: b a put: c d put: j k put: m n put: 7777 2266 + d2s: dbl put: je:
[04:12] EE6A59
ECHO ("a":"b","k":"j","d":"c","n":"m","dbl":"10043.0")
[09:34] EE6A59
ECHO ("a":"b","k":"j","d":"c","n":"m","dbl":"10043.0")
[09:19] BDF12C
OMNI jo: gc: dup: hm: b a put: c d put: j k put: m n put: 1199 2266 + d2s: dbl put: je:
[09:21] EE6A59
ECHO ("a":"b","k":"j","d":"c","n":"m","dbl":"3465.0")
[09:34] EE6A59
ECHO ("a":"b","k":"j","d":"c","n":"m","dbl":"3465.0")
[09:22] BDF12C
OMNI jo: gc: dup: hm: b a put: c d put: j k put: m n put: 1199 220066 + d2s: dbl put: je:
[09:22] EE6A59
ECHO ("a":"b","k":"j","d":"c","n":"m","dbl":"221265.0")
[09:34] EE6A59
ECHO ("a":"b","k":"j","d":"c","n":"m","dbl":"221265.0")
[09:34] BDF12C
OMNI jo: gc: dup: hm: b a put: c d put: j k put: m n put: 1199 2200 + d2s: dbl put: je:
[09:34] EE6A59
ECHO ("a":"b","k":"j","d":"c","n":"m","dbl":"3399.0")
[11:27] BDF12C
OMNI jo: gc: dup: hm: b a put: c d put: j k put: m n put: 1126 2200 + d2s: dbl put: je:
[11:27] EE6A59
ECHO ("a":"b","k":"j","d":"c","n":"m","dbl":"3326.0")
OMNI jo: gc: dup: hm: b a put: c d put: j k put: m n put: 1129 2200 + d2s: dbl put: je:

biglybt

BuddyPluginBeta.java

core > src > com > biglybt > plugin > net > buddy > BuddyPluginBeta.java > BuddyPluginBeta > logMessage(ChatInstance, ChatMessage)

83 BuddyPluginBeta implements DataSourceImporter, AEDiagnosticsEvidenceGenerator {

2292 logMessage(
2337 // Stack<> stackAll = new Stack<>();
2338 String expr = msg;
2339
2340 System.out.println(expr);
2341 System.out.println("Input\tOperation\tStack after");
2342
2343 // Phoscript (Phos) Engine
2344 for (String token : expr.split("\\s+")) {
2345 System.out.print(token + "\t");
2346 switch (token) {
2347 case "+":
2348 System.out.print("Operate\t\t");
2349 stack.push(stack.pop() + stack.pop());
2350 break;
2351 case "-":
2352 System.out.print("Operate\t\t");
2353 stack.push(-stack.pop() + stack.pop());
2354 break;
2355 case "*":



```
Version: 2.5.2-0
Uptime: 6 days
```

Update downloaded
Click Restart to install Version 2.6.0

3 Sec:	0.88/0.96 KBps
5 Min:	0.88/0.94 KBps
Total:	1.05/1.15 KBps
Used:	570MB/624MB

I2P Services

These are the local services provided by your router. By default, most of your client services (email, HTTP proxy, IRC) will share the same set of tunnels and be listed as "Shared Clients".

Status Messages

```
Starting tunnel A01 Omni*Web HTTPS...
Client ready, listening on 127.0.0.1:4444
Tunnels ready for client: HTTP Proxy on 127.0.0.1:4444
Client ready, listening on 127.0.0.1:6668, delaying tunnel open until required
Client ready, listening on 127.0.0.1:7660
Tunnels ready for client: Standard client on 127.0.0.1:7660
```

Refresh

Clear

Global Tunnel Control

Tunnel Wizard

Stop All

Start All

Restart All

I2P Hidden Services

Tunnels

Description: My eepsite

Na

[HOME](#)[ABOUT](#)[PLATFORM ▾](#)[PAGES ▾](#)[CONTACT](#)[Add Item](#)

A Truly Decentralised Web ...

Omni*Web::OXW is an initiative to build a Truly Decentralised Web, *owned and operated by individual users and free software programmers.*

OXW is built using reliable and transparent open source software projects that began in 2003 or earlier.

1. The first important technology is [I2P](#), which we prefer to rebrand as "Internationale Internet Proletariat", that enables ANY personal computer or mobile phone to act as WEB SERVER for FREE, without paying any company hosting fees that may range from USD10 to more than USD1000 PER MONTH, and also achieve the reverse -- allowing individual users and programmers providing hosting resources to CHARGE other users and generate income.

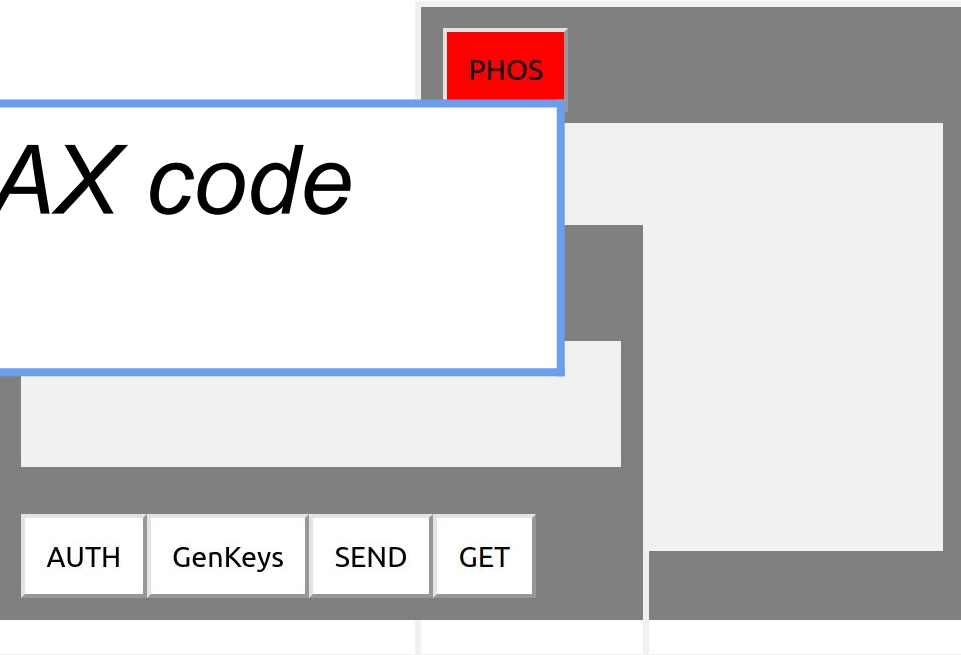
[Get Started](#)

Omni*Search Demo

Copy the following code and execute it in the browser console:

```
f(': B_F ' + JSON.stringify({w:'like', t:'recipient_hash', f:'sender_hash'}) + ' jd: rghe: g_ohc ; AJAX')
```

*Show Phoscript AJAX code
I2P + ngrok*





<> index.html h

<> index.html oxw X



oxw > <> index.html > html > body

2 <html lang="en">

4 <head>

29

30 <!-- Template Stylesheet -->

31 <link href="css/style.css" rel="stylesheet">

32 </head>

33

34 <script>console.log('Omni*Web::OXW');

35 function MyFunction() { console.log('MyFunction Omni*Web::OXW');

36 // window.location="https://

yo6sgmfq7pfvvp2e4kcuhtjfg7wfltt63igwcukhbmum6lu3a3a.b32.i2p/dm23/dmeta.

php?nn=adam";

37 window.location="https://

yo6sgmfq7pfvvp2e4kcuhtjfg7wfltt63igwcukhbmum6lu3a3a.b32.i2p/oxw/oxw.php?

nn=adam";

38 }

39 </script>

40

41 <body>

42 <div class="container-xxl bg-white p-0">

```

<!-- Omni*Web::OXW -->
<!-- Template Stylesheet -->
<link href="css/style.css" rel="stylesheet">
</head>
<script>
  console.log('Omni*Web::OXW');
  function MyFunction() {
    console.log('MyFunction Omni*Web::OXW');
    // window.location="https://
    yo6sgmfq7pfvvp2e4kcuhtjfg7wfltt63igwcukhbmum6lu3a3a.b32.i2p/dm23/dmeta.
    php?nn=adam";
    window.location="https://
    yo6sgmfq7pfvvp2e4kcuhtjfg7wfltt63igwcukhbmum6lu3a3a.b32.i2p/oxw/oxw.php?
    nn=adam";
  }
</script>
<body>
  <div class="container-xxl bg-white p-0">
    <div class="row">
      <div class="col">
        <div class="card">
          <div class="card-body">
            <div class="card-title">
              <h3>Omni*Web::OXW</h3>
            </div>
            <div class="card-text">
              <p>Omni*Web::OXW</p>
            </div>
          </div>
        </div>
      </div>
    </div>
  </div>
</body>
</html>

```





index.html oxw X

[illegible]

41 <body>

```
42 <div class="container-xxl bg-white p-0">
```

```
93 <div class="container-fluid header bg-white p-0">
```

```
94 <div class="row g-0 align-items-center flex-column-reverse
```

"Internationale Internet Proletariat", that enables ANY personal computer or mobile phone to act as WEB SERVER for FREE, without paying any company hosting fees that may range from USD10 to more than USD1000 PER MONTH, and also achieve the reverse -- allowing individual users and programmers providing hosting resources to CHARGE other users and generate income.</p>

```
103 <a href="" onclick="MyFunction();return false;"
    class="btn btn-primary py-3 px-5 me-3 animated
    fadeIn">Get Started</a>
```

104 </div>

```
105 <div class="col-md-6 animated fadeIn">
```

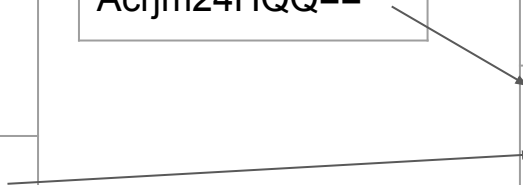
```
106 <div class="owl-carousel header-carousel">
```

```
107 <div class="owl-carousel-item">
```

```
108 OtherInfo: JSON<br>Platform: Mastodon |
| Dz9+PWwpCw==                                            |

|                                                         |
|---------------------------------------------------------|
| Diaspora                                                |
| UserID: JSmith<br>OtherInfo: JSON<br>Platform: Diaspora |
| Acrlm24HQQ==                                            |

|                                   |
|-----------------------------------|
| Omni*Web                          |
| UserID: JSmith<br>OtherInfo: JSON |
| Acrlm24HQQ==<br>Dz9+PWwpCw==      |





# Omni\*Web: Omni\*Contract

## OmniHash: Base64 53-bit Hash

### Contract to hash:

UserID: JSmith  
OtherInfo: JSON  
Platform: Diaspora

OmniHash

### OmniHash of Contract:

Acrjm24HQQ==

### OXC3 Triplets:

:Contract\_Hash: :PBKA\_Hash: :PBKB\_Hash:

OXC3

ROOT

### Root Hash (Hash of All Hashes):

:Root\_Hash:

Omni\*Contract (OXC) is arguably the simplest smart contract ever invented.

The simplest form of OXC consists of THREE (3) OmniHashes, which are collectively known as OXC3 or OXC Triplets:

- OmniHash of the Public Key of Party A
- OmniHash of the Public Key of Party B

Code for social media interfaces can be converted to hashes, and the hashes can be used by programmers to manage development projects.

Programmers working on different platforms may share code to maximise the use of limited free software programmers manpower.

Example: Jitsi Meet



## Files



master



Go to file

t

- > av-moderation
- > base
- > breakout-rooms
- > calendar-sync
- ▼ chat
  - > components
    - actionTypes.ts
    - actions.any.ts
    - actions.native.ts
    - actions.web.ts
    - constants.ts
    - functions.ts
    - middleware.ts

jitsi-meet / react / features / chat /



**mihhu** fix(subtitles) show subtitles even without reactions ena... bd631f5 · 2 months ago

History



**fix(subtitles) show subtitles even without reactions enabled (#14784)**

+1 -1



fix(subtitles) show subtitles ev... #14784



**mihhu** committed on May 29

Name

Last commit date



..



components



actionTypes.ts



actions.any.ts

ref(TS) Improve TS (#13120)

last year



actions.native.ts

ref(TS) Improve TS (#13282)

last year



actions.web.ts

ref(TS) Improve TS (#13120)

last year



constants.ts

feat: prosody plugin for sending syste...

3 months ago



functions.ts

feat: prosody plugin for sending syste...

3 months ago



middleware.ts

fix(subtitles) show subtitles even with...

2 months ago



reducer.ts

ref(chat): Refactor Chat components (...)

last year

Without Phoscript, impossible to  
integrate User Interface code written in  
various incompatible programming  
languages.

First example of Omnihash: involves only 2 parties;

Second example: integrating open source social media

- involve hundreds of programmers
- & millions of users.

Variables in project management: time, money, people,

- all can be quantified as hashes.

Authentication and identification using hashes

- do not involve centralised authorities
- Hash is unique and crucial in implementing truly decentralised information systems.

# Conclusions

## Omni\*Web TRIMEDIA: Training Infrastructure Metaprogramming Digital Assets

- Omnihash: hash number or hash code to label digital assets:
  - Monetise digital assets representing collaboration;
  - Attract more people to participate;
  - Repeat the above.
- Training: Using Omnihash, help FORTH experts and other trainers to manage training, trainees and payments.
  - Attract more trainers, trainees or investors using Omnihash.
- Metaprogramming: Phoscript helps anyone learn FORTH easily.
- Infrastructure: BitTorrent & I2P let you set up servers without any charges, no DNS, and EARN money for sharing your resources (CPU/GPU, bandwidth, storage), even if you don't do any of the above!!

title: CORE-I Phoscript Verilog Lesson 1

contract\_text: Trainer:Smith Trainee:Roberto Freq:Weekly Duration:4h

contract\_hash: GGNn2VcPBw==

root\_hash: hash(func\_hash HPBK\_A HPBK\_B) => DwXnmIHtA==

#### Contract to hash:

title: CORE-I Phoscript Verilog Lesson 1  
contract\_text: Trainer:Smith Trainee:Roberto Freq:Weekly  
Duration:4h

OmniHash

#### OmniHash of Contract:

GGNn2VcPBw==

#### OXC3 Triplets:

GGNn2VcPBw== :PBKA\_Hash: :PBKB\_Hash:

OXC3

#### Root Hash (Hash of All Hashes)

DwXnmIHtA==

**Omni\*Web 万能网**  
**Decentralised 去中心化**  
**Cloud 云端 &**  
**Metaverse 元宇宙**

弗式虚拟机  
Phos VM

自家云  
Garage Cloud

万能哈希码  
Omnihash

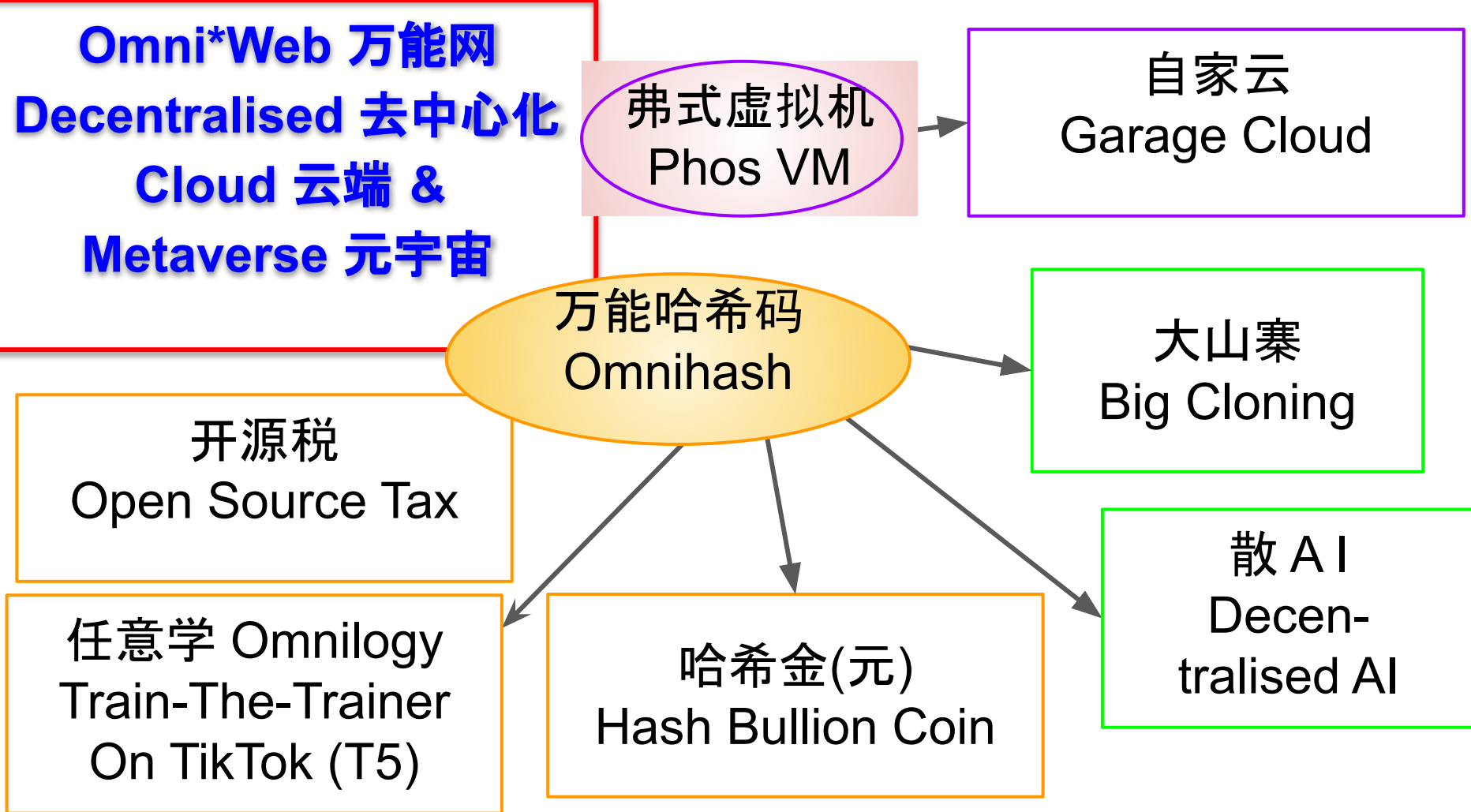
大山寨  
Big Cloning

开源税  
Open Source Tax

任意学 Omnilogy  
Train-The-Trainer  
On TikTok (T5)

哈希金(元)  
Hash Bullion Coin

散 AI  
Decen-  
tralised AI





# Phoscript Python SymPy

Bitwise Stack Machine: A “nano” FORTH interpreter taking inputs from 8, 16, 32, 64 bit words (storage) to produce integers or floating point numbers requiring more bits for storage.

- Based on prime factors: any integer is the product of prime numbers; the rank of a prime number needs fewer bits for storage compared to itself, e.g. Python `sympy.prime(1)=2`, `sympy.prime(7)=17`;
- Inspired by CORE-I and Space FORTH: to save more space (storage) in space (extraterrestrial).
- Need better ways to represent hash numbers, long random strings.

```
>>> n=1
>>> for c in range(13):
... if (c>0):
... n=sympy.prime(n); print(c,n)
...
1 2
2 3
3 5
4 11
5 31
6 127
7 709
8 5381
9 52711
10 648391
11 9737333
12 174440041
>>> hex(174440041)
'0xa65be69'
>>> # 7 hex char = 28 bits
```

Omnihash and hashes in general can be applied to:

- fiat currencies, cryptocurrencies, physical bullion (gold and silver),
- (collectively known as Trispecies Money)
- create a truly decentralised global monetary system based on physical bullion.

Artificial Intelligence: Hashes enable training data for large language models

- to be distributed on to small devices
- such as personal computers and mobile devices
- with limited CPU or GPU power, memory and storage.

Disclaimer before showing last slide:

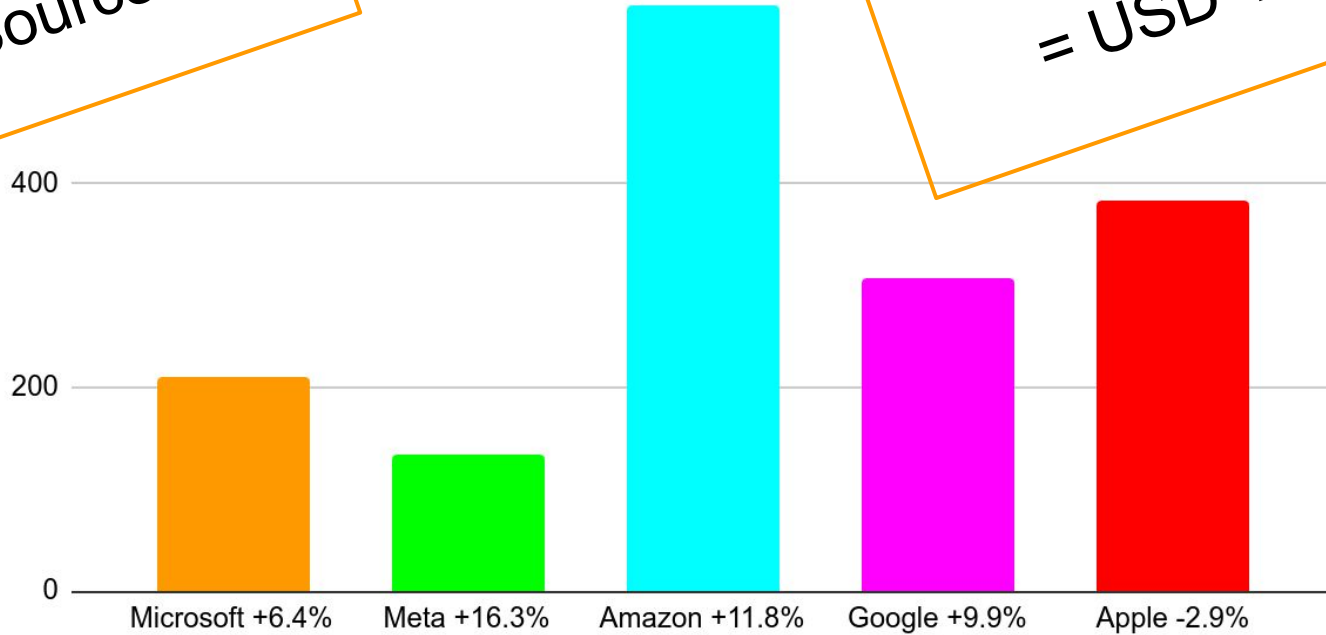
- Not sure if MMAGA (Microsoft Meta Amazon Google Apple) will be offensive to American audience; .... relate to hard monetary figures ....
- We adopt Monty Python humour, cf. Life of Brian.

## MMAGA Revenues 2023 (USD billions)

Total: USD 1.611 Trillion (+7.26%)

开源税  
600  
Open Source Tax

$0.1\% \times 1.6T$   
 $= \text{USD } 1.6B$



A literal trillion dollar question: Do you know that the combined revenues of the top 5 technology companies in 2023 already exceeded USD 1.6 trillion and are growing strongly above 5% annually?

# Relations of Phoscript Omni\*Web to other FORTH projects

<https://www.youtube.com/watch?v=xDkc2-LUmCs>

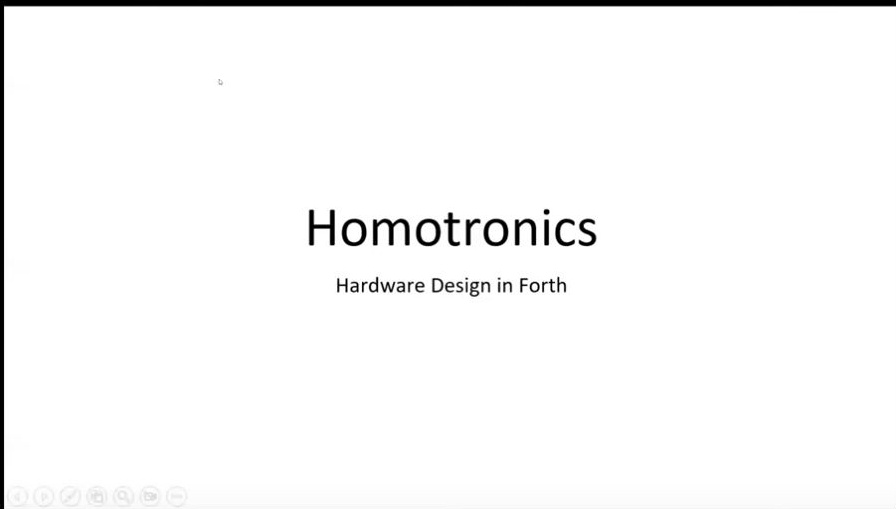
2022 FORTH Day, Phoscript Verilog Demo.

<https://www.youtube.com/watch?v=6LKN0hD8IGQ&t=48s>

Omni\*Chat 2024-04



less is m(o)re svfig



11:22 / 43:00



## Forth Day 2022 -- Less is Mo(o)re: Beyond FORTH -- Liang Ng and Demitri Peynado



Silicon Valley Forth Interest Gr...  
1.26K subscribers



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14



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SVFIG 2022-11-19

Forth Day 2022 -- Less is Mo(o)re: Beyond FORTH -- Liang Ng and Demitri Peynado

### Transcript



Search in video

- 11:21 so Liang just let me know if you've seen the slides yep that's fine so right here you can
- 11:27 see this line we can do you okay go on please thank you so uh
- 11:34 Liang mentioned before about the inverse chantillyard algorithm
- 11:39 and I saw his work a few years ago actually in fourth 2020 did a presentation on this
- 11:46 and he claims that the first script could interface with any known programming language am I challenged
- 11:54 that so I thought okay fair enough what what do I use what what do I personally use and since
- 12:02 I work as a design engineer in a company

English (auto-generated)



The everything app for work, now with chat.

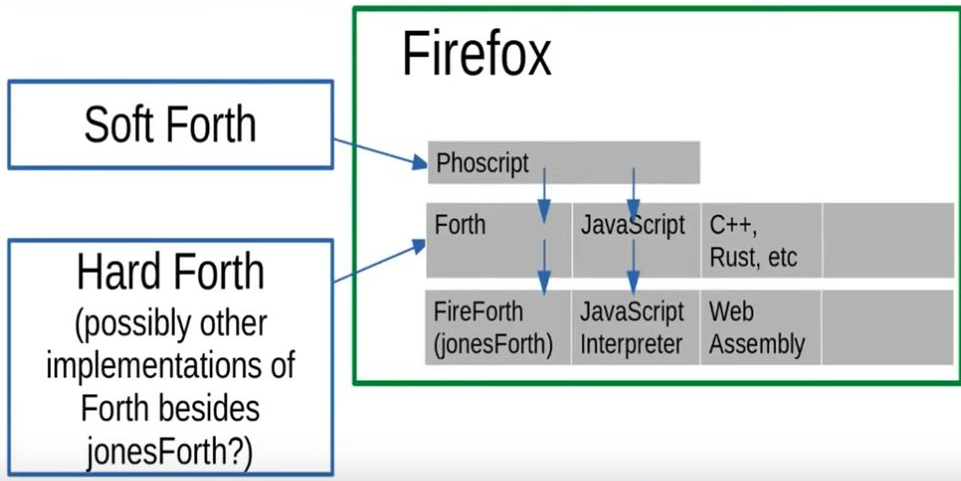


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# FireForth / Fire4x (jonesForth in Firefox)



27:21 / 43:00

Play, Next, Volume, Settings, Full Screen, Picture in Picture icons

## Transcript

Search in video

- 27:05 to actually hack the Firefox uh source code directly right so that we
- 27:12 can actually put in the the you know all all kinds of uh
- 27:17 assembly code right like John swap being one of the classic one might not be the best but uh that's what
- 27:25 I I had at that time yeah I I would estimate this this may take a
- 27:30 a one-man month to complete you know with uh you know with someone uh interested
- 27:38 yeah and uh yeah so anyway
- 27:43 it would be quite interesting to see that if you can execute for directly right in in the in the browser instead

English (auto-generated)

## Forth Day 2022 -- Less is Mo(o)re: Beyond FORTH -- Liang Ng and Demitri Peynado



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1.26K subscribers



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Try today

- Caution to connect to Tor and Onion.
- I2P: insert Phoscript debugging code to make sure no information will be compromised.
- Can be a new project on its own,
- at least 1 man month to get some significant results.
  
- Fire4x / FireFORTH too need 1 man month ....

Use Omnihash Omni\*Contract can monetise digital assets and motivate people.

- Monetise and Motivate

## References

<https://omnixtar.github.io/docs>

Success of Omni\*Web: BitTorrent.

<https://torrentfreak.com/bittorrent-is-no-longer-the-king-of-upstream-internet-traffic-240315/>

Omnihash name conflict: <https://github.com/Miserlou/omnihash>

- Last update: 8 years ago.



 **omnihash** Public

Watch 9 ▾

Fork 23 ▾









Star 253 ▾

master ▾

Go to file t

+

<> Code ▾

|                                                                                                                            |                                                         |              |
|----------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|--------------|
|  <b>Rich Jones</b> 0.21.1 - pluralize json | 870e9ae · 8 years ago                                   | 🕒 70 Commits |
|  omnihash                                  | 0.21.1 - pluralize json                                 | 8 years ago  |
|  tests                                     | fix(github): byte-interpolation in git...               | 8 years ago  |
|  .gitignore                                | 0.1.0 - working                                         | 8 years ago  |
|  .travis.yml                               | Small changes on top of new flow                        | 8 years ago  |
|  LICENSE                                   | 0.1.0 - working                                         | 8 years ago  |
|  MANIFEST.in                               | 0.1.0 - working                                         | 8 years ago  |
|  README.md                               | feat(cmd): <a href="#">FIX #14</a> impl -f option to... | 8 years ago  |

## About

Hash files, strings, input streams and network resources in various common algorithms simultaneously

[github.com/Miserlou/omnihash](https://github.com/Miserlou/omnihash)

📖 Readme

📄 MIT license

📈 Activity

★ 253 stars

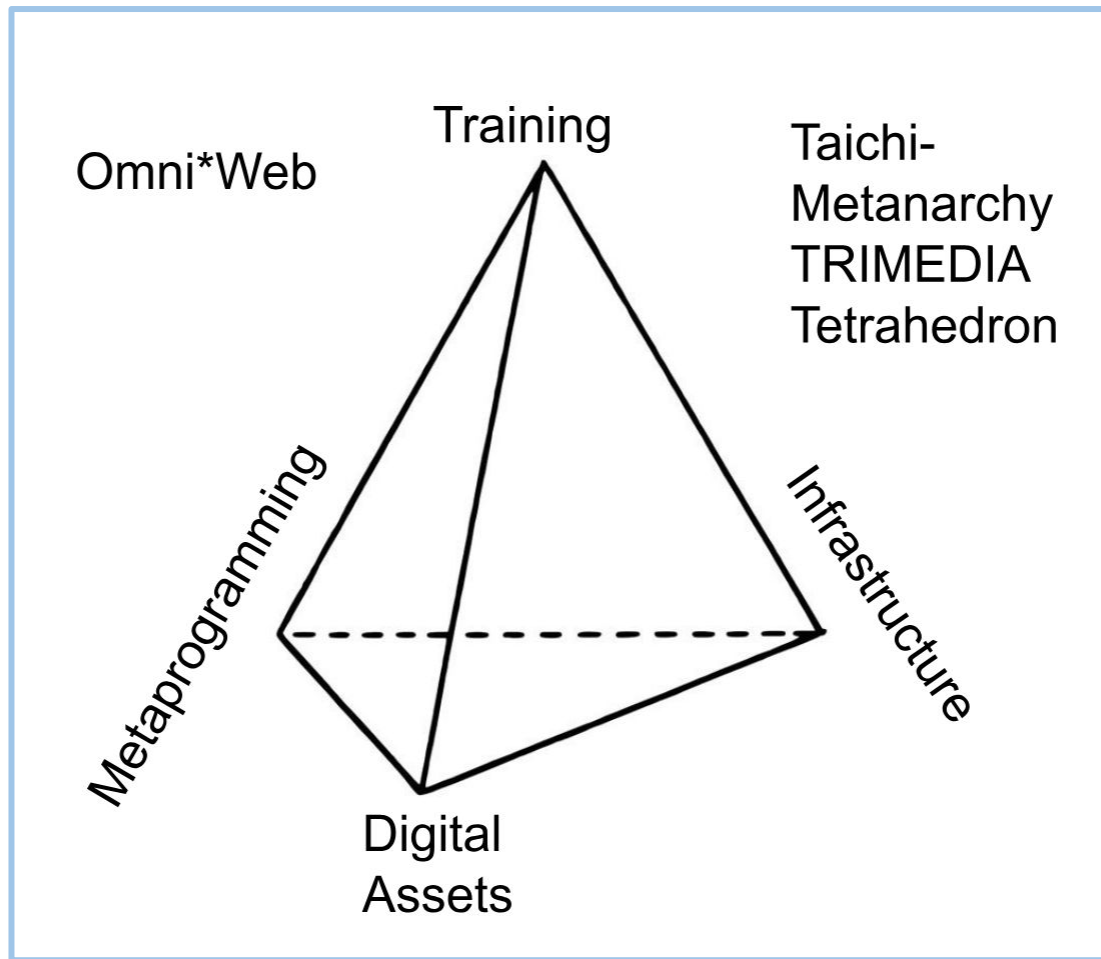
👁 9 watching

🍴 23 forks

Report repository

# Part III

- Components of Omni\*Web
- “Omni”, meaning “all” in Latin, is the opposite of UNIX
- The star \* character also means “all” in UNIX environments.
- Omni\* is both a double pun as well as a recursive acronym, in the long tradition of precedents such as GNU and PHP.
- Most importantly, \* character cannot be copyrighted.

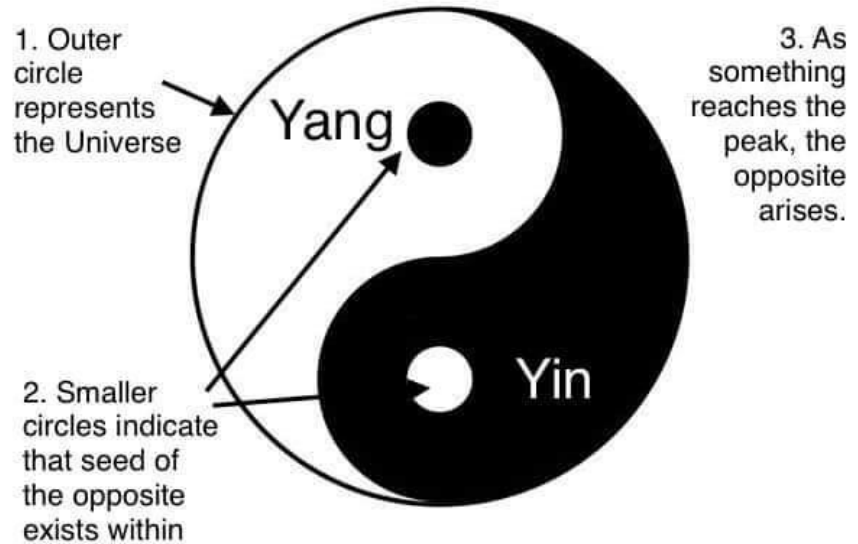


# Taichi-Metanarchy

Metanarchy = Metaverse +  
-archy (governance, e.g.  
Monarchy)

The English language only  
describes people by class, in  
opposition to each other. e.g.  
Centralized vs. decentralized.

## Yin-Yang 阴阳 Symbolisms



Taichi diagram shows opposing forces  
forming a unity.

太极阴阳 相克相生