<u>Duniix: from Sub-Megabyte MVC to Decentralized Social Media and Universal Inter-Crypto Payment System</u>

Liang Ng 伍樑盛 June 2021 六月

> https://www.linkedin.com/in/liang-ng-phd-%E4%BC%8D%E6%A8%91%E7%9B%9B-%E5%8D%9A%E5%A3%AB/

本文连接 Link to this article:

 https://github.com/udexon/flippio/blob/main/metaprogramming/MT002%20Duniix%20 SMMVC%20Introduction.pdf

Programming languages and MVC frameworks are like cars, which you would replace after 5 years or less, except that YOU are the one being replaced if you are a programmer.

Welcome to the Darwinian jungle of programmers, where the worst form of age discrimination occurs BUT no one talks about it. And we think we might have found the magic bullet to kill the monster of age discrimination amongst programmers, once and for all.

Duniix SMMVC (DUMVC, pronounced do-mu[sic]-k) brings you the first ever Sub-Megabyte MVC framework, based on a stack machine syntax and architecture derived from the Forth programming language. Duniix is a pun on Unix, where D stands for "decentralized" and U stands for "User Centric", in contrast to blockchain, which we think is decentralized but not user centric.

The reduction in footprint of Duniix SMMVC is achieved primarily due to the following breakthrough mechanisms:

- A. FSGDB (Filesystem Graph Database): A JSON object is saved directly to a Linux file or equivalent, with a JSON key mapped to a Linux directory or filename, and the corresponding value as the contents of the file.
- B. A Decentralized User Authentication Scheme (DUAS) is implemented by writing wrapper functions in Phoscript (derived from the Forth programming language) to utilize RSA functions in the built-in subtle.crypto library in browser JavaScript.
- C. Phoscript is used as a common wrapper or metaprogramming script to call front-end JavaScript functions as well as back-end PHP functions.

DUMVC will bring 3 main benefits:

i. <u>better income</u>, especially for the older programmers (past 5 years "end of life" period);

- ii. <u>better knowledge</u> for the next generation of students, as metaprogramming is the foundation of programming and mathematics;
- iii. <u>better government</u>, as public key cryptography will ensure authenticity of data, especially after the COVID19 pandemic triggered a crisis of confidence against governments worldwide.

What started as the GNU Linux free software revolution (FSR 1.0) in the 1990s have created the biggest wealth concentration ever in human history in the form of trillion dollar companies which we call MAGAF, taken from the initials of Microsoft, Apple, Google, Amazon and Facebook.

As such, we suppose no one would object to our modest goal of using DUMVC to achieve 1% of MAGAF revenues in 5 years, or around 2025. To achieve this goal, we have plenty of old cars, sorry, programmers, as the captive market, or more accurately, captive labourers, who will see their own "end of life" very soon anyway.

Readers can verify for themselves (senior or junior or even non-programmers) the effectiveness of DUMVC in 4S (software syntax and system simplification), as DUMVC JavaScript source code (unminified) can be downloaded and analyzed. Although the back-end PHP code is not currently available ("off the shelf") pending investment negotiations, it can be reverse engineered easily based on the disclosed JavaScript source code. (We have a very loose arrangement to share the full DUMVC source code at this stage — Just Ask! We just do not wish to give away the source code without knowing who you are.)

The biggest bottlenecks facing free software social media projects are demonstrated by Mastodon, a Ruby and PostgreSQL based system, which needed a LIVE NODE for the web certificate module to function properly. DUMVC can be added to systems like Mastodon as a "tag along" extension, without drastic change to the existing code. As DUMVC has its own DUAS and FSGDB, after the initial "parasitic" phase of DUMVC tagging along with Mastodon or similar social media platforms, DUMVC can operate independently with its own server and client apps, or continue to act as a "universal decentralized social media hub" that can be the common hub to all existing social media, which are not interoperable and mutually incompatible.

This phase may take as little as 3 months to achieve, if sufficient number of programmers can contribute to DUMVC Decentralized Social Media (Decsom).

Next, payment. No tipping for all programmers despite millions of lines of code contributed to GitHub weekly!!

One of the biggest ironies in the world of software industry is that, despite millions of lines of open source project source code being contributed to GitHub or similar platform every month, there is still no one universal platform for programmers to receive tips (small amount of gift payments) online, where a significant percentage (say 1%) of programmers are actively using.

We attribute this "discrepancy" to the "superstition" where <u>user authentication must be done</u> <u>with a centralized database system</u>, which we disproved with Duniix DUAS. Using DUAS, we may set up a Payment / Messaging system with the following scenario:

Scenario I

Adam in El Salvador wishes to send money to Diana in Thailand, where neither Adam nor Diana has a cryptocurrency wallet.

Suppose Brian is a Bitcoin user with a cryptocurrency wallet who lives near Adam, and Christ is also a Bitcoin user with a cryptocurrency wallet who lives near Diana.

Using DUAS, a messaging system connecting Adam, Brian, Christ and Diana is set up. RSA is used to verify each stages of the transaction:

- I. Adam sends USD10 to Brian, using a national bank website in local currency, with an RSA encrypted message.
- II. Brian sends the equivalent of USD to Christ using Bitcoin, with an RSA encrypted message.
- III. Christ sends the equivalent of USD10 (minus commission) to Diana, using a national bank website in local currency, with an RSA encrypted message.
- IV. Diana sends an RSA encrypted message to Adam, after she receives the money.

We tentatively called this payment / messaging system PhosPay, based on Phoscript, as the name Duniix was adopted later.

Based on Scenario I for PhosPay as described above:

- 1. It is almost virtually free to set up the PhosPay network, as it only requires DUMVC, whose footprint is less than 1 MB to operate.
- 2. PhosPay is a messaging channel independent of the existing payment infrastructure, it is very flexible and can be used by users of any payment platform, with any national currency on any national banking website, as well as any cryptocurrency, not restricted to Bitcoin only. In fact, the first and last leg of the payment can even be done with physical hand to hand handing over money, for locations or situations where online transactions are inconvenient.
- 3. Based on (2), a large number of individuals can act as Agents of PhosPay, especially those who have cryptocurrency wallets, currently estimated to be less than 0.1% of the total human population. As such, competition amongst PhosPay Agents will make transaction commission using PhosPay minimal, thus enabling international micropayment or tipping transactions.

Since the launch of GNU + Linux free software revolution, obviously there does not seem to be an attempt to calculate the number of millionaires, billionaires or even trillionaires who have become rich as a result of the free software revolution.

Suppose of all the millionaires, billionaires or trillionaires who have benefited from free software, 1000 millionaires (or richer) donate USD 1000 each week to the top 1000 free software programmers on GitHub or other platforms, that would be a HUGE boost to all the free software programmers worldwide, who have not been properly rewarded for the past few decades. As such, PhosPay seems to be a viable solution to make this happen.

With the Decentralized Social Media (DecSom) and PhosPay proposed above, if we can find sufficient manpower to implement these solutions in 6 months, then they would create a snowball effect to attract more programmers to start using Duniix.

Conclusions

We have outlined Duniix Sub-Megabyte MVC system and two important applications, Decentralized Social Media (DSM), and PhosPay, a universal inter-crypto payment system.

We believe that these would address the crises faced by all computer programmers --- planned obsolescence of programming languages and programmers themselves.

More specifically, we propose a modest goal to achieve by 2025, to achieve 1% of MAGAF revenues with Duniix.

References and Links

1. Phoscript Tutorials

https://github.com/udexon/Multiweb/blob/master/Phoscript Tutorials.md

2. Duniix Phoshell

https://github.com/udexon/DUNIIX/blob/main/DU001 Phoshell.md

3. Phoscript Overview

https://youtu.be/5Fm8e4LC5vo https://youtu.be/orfg9ZEw4zs

4. MT001 SMMVC: Stack Machine Model View Controller

- https://github.com/udexon/flippio/blob/main/metaprogramming/MT001%20SMMVC% 20Stack%20Machine%20Model%20View%20Controller.pdf
- Flippio combines Flipped Classroom with video editing and social media, "群动视频制作教学法" 将 "翻转课堂"方法 应用于 视频制作 及 社交网络, providing a method to bypass "the first 1000 subscribers" barrier of entry 助您跨越 "首 1000 粉丝" 的门槛,

to be an influencer, with a Fibonacci type membership growth mechanism. 成为网红, 并使群粉丝人数以斐波那契数列增长。

- 脸书群: https://www.facebook.com/groups/flippio
- 微信群



- GitHub: https://github.com/udexon/flippio
- WhatsApp: https://chat.whatsapp.com/LSwxtXEFBeWFqNkxGviVIU