MM001 MetaMVC (MMVC)

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    本文连接 Link to this article：
- https://github.com/udexon/flippio/blob/main/metaprogramming/MT002%20Duniix%20SMMVC%20Introduction.pdf

♣ MetaMVC (MMVC): the Next Free Software Revolution by the PEOPLE, including NON-PROGRAMMERS — Cloning MAGAF (Microsoft Amazon Google Apple Facebook) services TOGETHER — Creating Decentralized Social Media with a FORTH inspired universal metaprogramming script — Phoscript.
https://github.com/udexon/MetaMVC

1. Meta MVC (MMVC) aims to unravel two of the most elusive topics in computer programming, _metaprogramming and MVC_, to programmers of all ages, from junior programmers to senior programmers, as well as non-programmers.

If you are wondering what metaprogramming is, consider the expression "3 + 4". You may key in "3 + 4" in a spreadsheet program such as Microsoft Excel or Google Spreadsheet to obtain 7.

However, at the dawn of modern computers during the 1960s, computers cannot process "3 + 4" directly. To solve this problem, Dijkstra, one of the most influential computer scientists in human history, proposed the legendary shunting yard algorithm, which transforms "3 + 4" to "3 4 +", known as Reverse Polish Notation. RPN Calculators and Forth interpreters (compilers) (see links below) are examples of devices and programs that can process "3 4 +" to obtain 7:

- https://techcrunch.com/2009/04/14/the-hp-34-the-most-important-reverse-polish-notation-calculator-in-the-world/
- https://www.tutorialspoint.com/execute_forth_online.php

2. The next ask you may ask is,

- What has "3 4 +" got to do with JavaScript, web and mobile programming?

The short answer that we will give you now is,

- ANY function in ANY programming language can be written in Reverse Polish Notation, e.g.:

PHP file_get_contetns() can be written in RPN as:

[optional parameters] filename file_get_contents:

https://www.php.net/manual/en/function.file-get-contents.php

file_get_contents(
    string $filename,
    bool $use_include_path = **false**,
    resource $context = ?,
    int $offset = 0,
    int $length = ?
)

3. The next question you may ask is,

● What can simplifying program code ultimately achieve?

The short answer is,

● Decentralized Social Media (DSM)

Just like the GNU Linux Free Software Revolution was started with the goal of cloning the then proprietary UNIX operating systems, we need not aim too high at innovations. We just need to CLONE existing services dominated by MAGAF (Microsoft Amazon Google Apple Facebook).

If we are able to achieve even 1% of MAGAF traffic by 2025, that would be a TREMENDOUS achievement. In order to achieve this goal, Duniix MMVC has the following features:

i. Phoscript makes programming as easy as spreadsheets, enabling EVERYONE (including NON-PROGRAMMERS) to collaborate to develop Decentralized Social Media. It can also UNIFY programmers from different programming languages and frameworks to work together using ONE universal metaprogramming script.

ii. Existing MVC systems have HUGE footprints as they depend on Centralized User Authentication Scheme (CUAS), which in turn employ centralized (SQL) database management systems. As such, their footprints are above 100MB, deployed on the so called "cloud computing systems".

In Duniix MMVC (the name Duniix is a pun on UNIX, with D="Decentralized", U="User Centric"), Decentralized User Authentication Scheme (DUAS) is implemented using RSA algorithms (now included in Subtle Crypto library in web

browsers), and Filesystem Graph Database (FSGDB) which replaces SQL-type database is implemented by directly mapping JSON keys to Linux paths.

With the above innovations, Duniix MMVC footprint is SUB-MEGABYTE (less than 1 MB), making it possible to be deployed on mobile devices, completely eliminating the necessity of cloud computing systems as servers.

4. Meta MVC is also simple enough for junior programmers to learn and develop their own MVC FROM SCRATCH!!

To illustrate the simplicity of MMVC, consider the following example, where a dialogue box on a HTML web page can be created using the following command (figure 2):

- save_url dlb_url:

a. Figure 1 shows a web page built using Duniix MMVC. After the user completed the "logged in" step, he (she) then created an additional dialogue box by entering the following command in the dialogue box marked with the red "donald" button, as shown in figure 2.
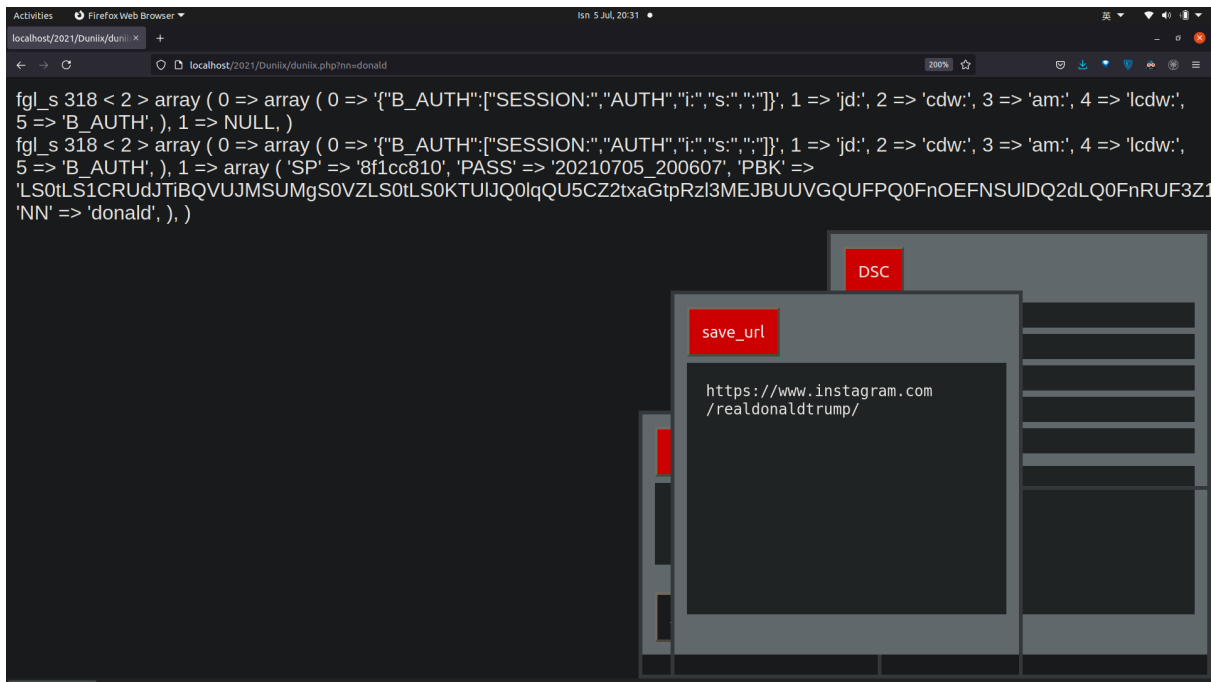
- save_url dlb_url:

This is a Reverse Polish Notation expression, where the parameter(s) (name of the new dialogue box) come(s) before the function dlb_url:

Figure 1
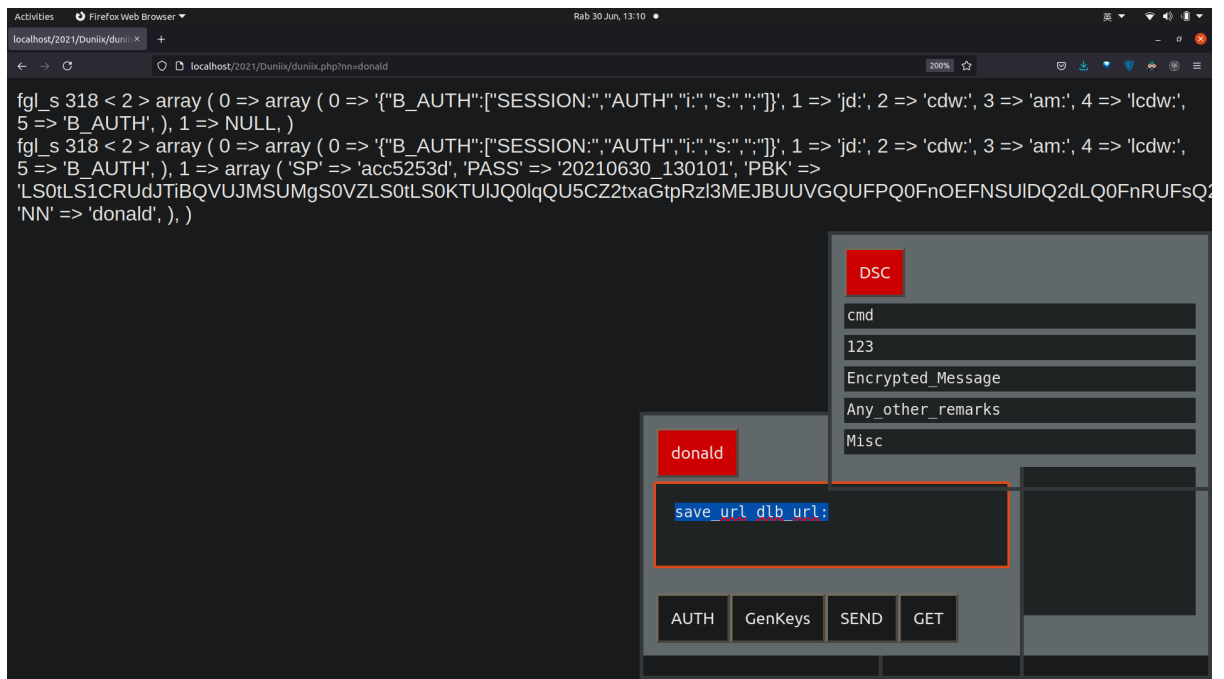
The additional dialogue box is shown in figure 2, with the red button marked "save_url".

Figure 2

fgl_s 318 < 2 > array (0 => array (0 => '{"B_AUTH":["SESSION:","AUTH","i:","s:",";"]}', 1 => 'jd:', 2 => 'cdw:', 3 => 'am:', 4 => 'lcdw:', 5 => 'B_AUTH',), 1 => NULL,)
fgl_s 318 < 2 > array (0 => array (0 => '{"B_AUTH":["SESSION:","AUTH","i:","s:",";"]}', 1 => 'jd:', 2 => 'cdw:', 3 => 'am:', 4 => 'lcdw:', 5 => 'B_AUTH',), 1 => array ('SP' => '8f1cc810', 'PASS' => '20210705_200607', 'PBK' => 'LS0tLS1CRUdJTiBQVUJMSUMgS0VZLS0tLS0KTUlJQ0lqQU5CZ2txaGtpRzl3MEJBUUVGQUFPQ0FnOEFNSUlDQ2dLQ0FnRUF3Z1', 'NN' => 'donald',),)

5. The training for Meta MVC (MMVC) will be conducted via Flippio Fibonacci Network, a social network focusing on training using the flipped classroom method:

Flippio Projects Weekly Discussion, every Saturday 8pm UTC+8 (Kuala Lumpur), next one on 10 July 2021, Google Meet Link: meet.google.com/wjp-hduc-ysj

Flippio Fibonacci Network: the easiest way to grow your social networks by using Flipped Classroom to train trainees make videos.
https://www.facebook.com/groups/flippio

Flippio WhatsApp Group: https://chat.whatsapp.com/LSwxtXEFBeWFqNkxGviVIU

* Please try to BRING ONE GUEST together with you, so that you can experience Fibonacci effect yourself. *

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

5. MT002 Duniix: from Sub-Megabyte MVC to Decentralized Social Media and Universal Inter-Crypto Payment System
- https://github.com/udexon/flippio/blob/main/metaprogramming/MT002%20Duniix%20SMMVC%20Introduction.pdf

6. 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。

- 微信群

群动视频教学法 Flippio

Valid until 7/18 and will update upon joining group

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

- GitHub: https://github.com/udexon/flippio

- WhatsApp: https://chat.whatsapp.com/LSwxtXEFBeWFqNkxGviVIU