The info below is simply FYI and to help someone learn and have fun with hash cracking. This is by no means a conclusive demonstration of which wordlist or ruleset is "best". The "best" wordlist + rules is the one that generates the plaintext!

Having a good wordlist + rules is vital to hash cracking. I use my own wordlist + rules when cracking, but for these tests, I'll only be using publicly available wordlists.

To set the test up, I compiled 1,995,899 plaintext from the stockx database, then hashed these to md5.

I used publicly available wordlist and rules, but also compared the results to my own rules.

100% of cyclone's rules have been handwritten or generated by cyclone and trained against scores of databases. These were given as a comparison. They're not always better, but as you will see below, they generally do well.

#### Test set:

stockx plaintext - 1.9 m

#### Wordlists:

<mark>rockyou + phpbb</mark> - 146 mb <mark>hashkiller</mark> (Jan 2020) - 2.9 gb

## Rules:

best64 - 77 rules (included with hashcat)

TOXIC - 4085 rules (included with hashcat)

top\_1500 - top 1,500 rules (from @blandyuk's hashcatgui)

top\_5000 - top 5,000 rules (from @blandyuk's hashcatgui)

d3ad0ne - 34,099 rules - d3ad0ne

OneRuleToRuleThemAll - 51,998 rules - notsosecure

cyclone\_mini - 195 handwritten rules - cyclone

cyclone\_250 - top 250 rules - cyclone

cyclone\_1500 - top 1,500 rules - cyclone

cyclone\_5000 - top 5,000 rules - cyclone

cyclone\_mst - top 50,000 rules - cyclone (to replace OneRuleToRuleThemAll)

## Results:

Rockyou + phpbb:

#### Code:

no rules	(2.70%)
best64	(6.86%)
cyclone_mini	(22.39%)
T0XIC	(22.66%)
top_1500	(24.84%)
cyclone_250	(26.57%)
top_5000	(39.22%)
d3ad0ne	(41.12%)
cyclone_1500	(41.58%)
OneRuleToRuleTh	emAll (50.77%)
cyclone_5000	(51.58%)
cyclone_mst	(61.86%)

Hashkiller:

# Code:

no rules	(34.50%)
best64	(37.98%)
cyclone_mini	(52.77%)
T0XIC	(54.66%)
top_1500	(58.71%)
cyclone_250	(59.01%)
top_5000	(71.54%)
cyclone_1500	(71.73%)
d3ad0ne	(75.83%)
cyclone_5000	(79.25%)
OneRuleToRuleTh	nemAll (79.64%)
cyclone_mst	(86.10%)

Credits to all those who were involved with creating the rules & wordlists used above.

<sup>~</sup>cyclone

<sup>\*\*\*</sup> updated 07/01/2020 \*\*\*