

This is a semi-public forum for participating in Ethereum's research efforts, including but not limited to:

- Proof-of-Stake
- Scaling solutions
- EVM improvements
- Low-level protocol improvements
- Economics
- protocol economics
- Resource pricing economics
- protocol economics
- Resource pricing economics
- Other second-level features

This is not

the place for:

- generic ethereum discussion. For that visit r/ethereum.
- discussing specific EIPs. For that visit the [Ethereum Magicians](#) forum.
- technical questions and ELI5s. For that visit the [StackExchange](#).

If your signal-to-noise ratio gets too low, you will be banned from ethresear.ch

. So please keep discussions information-rich. Posting on this site is accepting releasing your submitted content into the public domain

([CC0](#)).

Forum Features!

1. LaTeX Equations

This forum supports \LaTeX

equations between \$dollar signs\$. The default LaTeX style is the "inline" style which looks like $\sum_{k=0}^n \binom{n}{k} = 2^n$

, in text this is

$\sum_{k=0}^n \binom{n}{k} = 2^n$

However, if you start your equation with \$\$ on it's own beginning and teminating line like,

$$\sum_{k=0}^n \binom{n}{k} = 2^n$$

it looks like this

$$\sum_{k=0}^n \binom{n}{k} = 2^n$$

2. Graphviz diagrams

See the documentation for a [list of examples](#) to build your graph.

```
[graphviz engine=dot] digraph { concentrate=true; a[color=red, style=filled, fillcolor=pink]; b[shape=diamond]; a -> b; b -> c; c -> a; d -> c; e -> c; e -> a; a -> e; } [/graphviz]
```

a a

a

b b
b
a->b a->b
e e
e
a->e a->e
c c
c
b->c b->c
c->a c->a
d d
d
d->c d->c
e->c e->c

3. YUML diagrams

[YUML diagrams](#) allow making nice little graphs within your posts.

They have an idiosyncratic but fairly simple markup language.

Example:

```
[yum!] [foo{bg:cornsilk}][--][baz] [foo]->[bar{bg:orange}] [baz]-.->[qux] [qux]--label>[bar] [/yum!]
```

```
[yum!] [Vote Message|+Source hash;-Source height;+Target hash;-Target height|+Withdraw();+Last_commit] [/yum!]
```

4. Images!

Unsurprisingly, we also support images.

```
[  
u1  
614x800 57.9 KB  
](https://ethresear.ch/uploads/default/original/1X/f155892dd1d8921e9afeb4407aa241d16a6a0c84.jpg)
```

Useful sites

- Ethereum dot org - <https://ethereum.org/>
- Upgrading Ethereum by Ben Edgington - <https://eth2book.info/>