The Zen of ZQL
or how to query Zabbix and keep your cool
Sometimes, you can not get what you want through the Zabbix Frontend. Sometimes, Administrator shall make a sophisticated queries for the History or the Configuration. Sometimes, you shall deploy the configuration “as a code”

In that case, Zabbix API, that what is recommended for the Administrator, and that what most people are using. But …

```python
# Create a time range
time_till = time.mktime(datetime.now().timetuple())
time_from = time_till - 60 * 60 * 4  # 4 hours

# Query item's history (integer) data
history = zapi.history.get(itemids=[item_id],
            time_from=time_from,
            time_till=time_till,
            output='extend',
            limit='5000',
        )
```
Yes, sometimes you do not have a time to write a code. Sometimes you cannot afford to write a code. Sometimes, you do not want to own and support a code. And sometimes… you do not have to write a code, because all you want, is a sending a query. Just a query, nothing more than that. Because you do not cook 5-course meal if all you want is a sandwich.
But, Zabbix doesn’t have a query language …
It does now!

and it is called ZQL - #Zabbix Query Language
ZQL is a "stack-based" query language. Results of the expression are stored in the Stack and the next expression can access those results.
## Take the list of hosts

(Hosts)

## Filter them, so you include only the ones where proxy do have a value

(Filter TRUE [proxy_hostid Ne 0])

## So, now we do have a filtered list of the host in stack, Let's merge it with Proxy configuration

## First, we will put the list of the Proxies to stack

(Proxies)

## Then merge previous data in the stack with the last one. The previous were the Hosts, so if the value proxy_hostid and hostid in (Hosts) and (Proxies) will be the same, the proxy value will be merged with the Host and the new value will be stored in the stack

(Merge proxy_hostid proxyid)

## Tak the last value from the stack. It was merged results, remember?

(Out)
https://github.com/vulogov/zq/