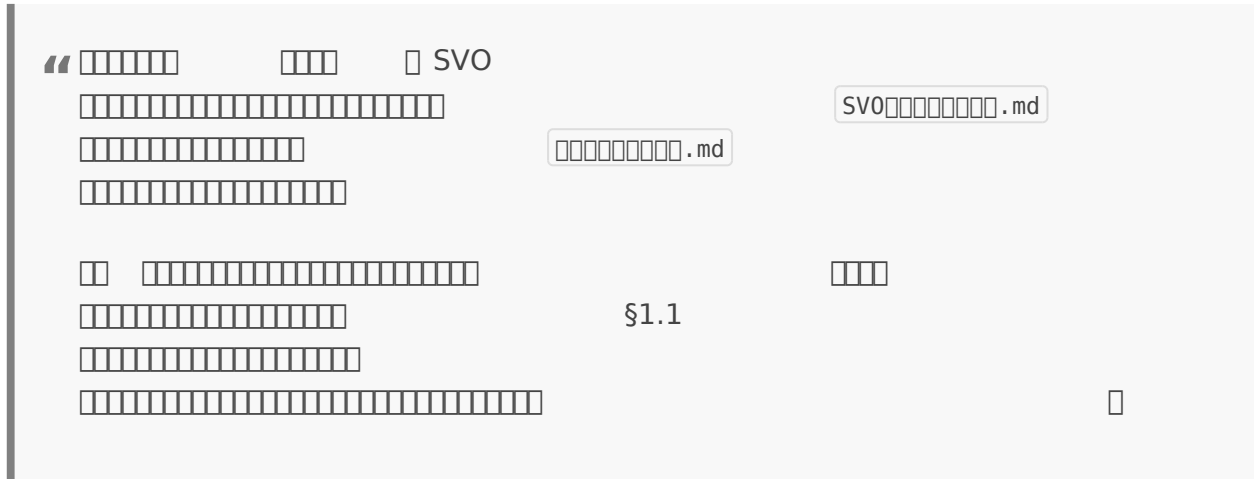


# SVO??????????

# SVO ????????????



## ???????

[Placeholder] [Placeholder] = [Placeholder] + [Placeholder] + [Placeholder] + [Placeholder] [Placeholder]

[Placeholder] [Placeholder] [Placeholder].md \$[Placeholder]

[Placeholder]	[Placeholder]
[Placeholder]	[Placeholder] → SVO [Placeholder] → [Placeholder] top-K → [Placeholder]
[Placeholder]	[Placeholder] BFS[Placeholder] [Placeholder] / > / [Placeholder]
[Placeholder]	[Placeholder]
[Placeholder]	threshold [Placeholder] + conclu / info / output [Placeholder]

[Placeholder] [Placeholder]

- [Placeholder] [Placeholder] ---[Placeholder] "[Placeholder]" "[Placeholder]"
- [Placeholder] [Placeholder] ---SVO  
 [Placeholder]
- [Placeholder] [Placeholder] ---[Placeholder] / [Placeholder] / [Placeholder] / [Placeholder] "[Placeholder]" < 1 [Placeholder] "  
 [Placeholder]  
 [Placeholder] bug







`t_k` `k` `d` 0.5

- `B_i` → `B_i` → `B_i`
- `t_k` → `B_i` → " " "

`a_i` `B_i`

$$E_i = a_i + \alpha \cdot \text{softplus}(B_i) \quad \alpha = 0.1$$

`alpha` `priming` `conclu` `E_i` `a_i`

## 2.6 ??????????????

`source_expr_id` `SVO` + `conclu` + `B`

- `conclu` = `B`
- `B`
- `B` §6

## ???????????????? = ????????

`top-K`

## 3.1 ??????????

`depth=0` +1

$$v(\text{concept}) = v(\text{root}) + \sum \alpha^{\text{depth}} \cdot v(\text{child}_i)$$

$\alpha = 0.8$

`SVO` `depth=0` `:` +1

`BGE-base / Qwen3-Embedding` + `role` 4 `LoRA` `entity/concept/scope/sentence_mod`

`K` / `Karpathy`

- `K` / `Karpathy`
- `(:):` `(:):`

- [ ] vs [ ]
- [ ] ([:CEO]) vs [ ] ([:CEO])
- role [ ] (AI:[:]) scope vs AI entity

## 3.2 ? role ????

[ ] role metadata [ ]

- [ ] → entity + concept [ ]
- [ ] → scope [ ]
- [ ] → sentence\_mod [ ]

[ ] (AI:[:]) [ ] scope [ ] AI [ ]

## 3.3 ?? / ??????????????????????

[ ] \$1.2 [ ] [ ] + [ ]

- [ ] [ ] scope [ ] sentence\_mod --- [ ]
- [ ] [ ] --- [ ]

[ ]

## ?????????????

## 4.1 ??????????????????????

```

[ ] SV0 [ ]
|
[ ] [ ] - SV0 [ ] → [ ]
|   |
|   | - [ ] top-K [ ] a_i = [ ]
|   | - [ ]
|
[ ] [ ] - [ ] BFS [ ] max_hops [ ]
|   |
|   | - [ ]
|   | - [ ] × gate_penalty [ ]
|   | - [ ] fan effect [ ] hub [ ]
|   | - [ ] global_decay

```



## 4.4 ??????????????

????????? gate\_penalty=0.1 ??????????

????	????	??
polarity ????? vs ???	0.05	????????
quantifier ????? vs ? vs ???	0.20	????????
modality ????? vs ???	0.40	????????
voice ??? active vs passive?	1.00	?? ---????????
connector_class ???	0.25	????????

## 4.5 ???????? config.yaml?

```

activation:
  entry_top_k: 5          # ??????????
  max_hops: 2            # ??????
  global_decay: 0.7     # ?????????
  threshold: 0.05       # ?????????
  gate_penalty: 0.10    # ?????????
  fan_trigger: 20       # ?????? fan ???
  fan_normalizer: sqrt  # sqrt / linear / none
  base_activation_alpha: 0.10 # ??????
  max_visited_nodes: 10000 # ?????

edge_weight:
  slot: 0.80
  utterance: 0.50
  modifier: 0.60
  logical:
    ??: 0.80
    ??: 0.75
    ??: 0.70
    ??: 0.70
    ??: 0.60
    ??: 0.60
    ??: 0.60
    ??: 0.60
    ??: 0.50
    ??: 0.30
  
```

output:

```

conclu_top_m: 10          # 10000000
info_top_n: 30           # 1000000
logic_chain_max_depth: 4 # 10000000

```

## 4.6 BuildContextFragments?

```

def SpreadingActivationSearch(query: str) -> tuple[str, str, str]:
    """(conclu, info, output)"""

```

- **conclu** [ ] top-M [ ] SVO canonical + [ ] = LLM [ ] [ ]
- **info** [ ] top-N [ ] (atom, energy, entry\_sources, hop\_path) LLM [ ]
- **output** [ ] / [ ] logic\_chain\_max\_depth [ ] -- [ ] LLM [ ] / [ ]

## 4.7

( > ) > > ( ? )	→ → → → → >	connector_class= [ ]
: > > >	: > > > quantifier × 0.2	
: >	: > : polarity × 0.05	
( AI: ) : ( K > > > X )	scope [ ] [ ]	
A [ ] B [ ] C [ ]	[ ] [ ]	L6 [ ]
[ ] AGI [ ]	AGI [ ] [ ] → [ ] → utterance [ ]	[ ]

??????

```

--
CREATE TABLE concept (
  id BIGSERIAL PRIMARY KEY,
  canonical TEXT NOT NULL, -- ([:]):Karpathy
  core_word TEXT NOT NULL, -- Karpathy
  modifiers TEXT[] NOT NULL, -- [], []
  role VARCHAR(16) NOT NULL, -- entity|concept|scope|sentence_mod
  vector VECTOR(768),
  base_activation FLOAT NOT NULL DEFAULT 0, -- B_i
  last_hits_ts TIMESTAMPTZ[] -- N [] B_i []
);
CREATE INDEX idx_concept_role ON concept(role);

```

```

--
CREATE TABLE action_proposition (
  id BIGSERIAL PRIMARY KEY,
  subject_id BIGINT REFERENCES concept(id),
  verb TEXT NOT NULL,
  object_id BIGINT REFERENCES concept(id), -- NULL PropRef
  object_ref BIGINT, -- PropRef []
  polarity SMALLINT NOT NULL DEFAULT 1, -- []
  modality VARCHAR(16), -- []
  quantifier VARCHAR(16), -- []
  voice VARCHAR(8) DEFAULT 'active', -- []active/passive
  base_activation FLOAT NOT NULL DEFAULT 0,
  last_hits_ts TIMESTAMPTZ[],
  source_expr_id BIGINT NOT NULL
);

```

```

--
CREATE TABLE logical_proposition (
  id BIGSERIAL PRIMARY KEY,
  antecedent_id BIGINT NOT NULL REFERENCES action_proposition(id),
  connector_raw TEXT NOT NULL, -- /...
  connector_class VARCHAR(16) NOT NULL, -- /...
  consequent_id BIGINT NOT NULL REFERENCES action_proposition(id),
  base_activation FLOAT NOT NULL DEFAULT 0,
  last_hits_ts TIMESTAMPTZ[],
  source_expr_id BIGINT NOT NULL
);

```



# 6.1 ??? ? ???????????

- `episodic` `source_expression` + `base_activation` /
- `semantic` + `weight_override`

CLM Complementary Learning Systems, `md` §5.4

# 6.2 ??????????reconsolidation?

```
def on_hit(node, now):
    node.last_hits_ts.append(now)
    if len(node.last_hits_ts) > MAX_HITS_BUFFER:
        node.last_hits_ts.pop(0)
    node.base_activation = log_sum_power_decay(node.last_hits_ts, d=0.5)
```

- `B` → `priming`
- `B` → `" "`
- `reconsolidation` §3.2

# 6.3 ??????????????????

1. `N` →
2. `weight_override`

```
 $\Delta w_{ij} = \eta \cdot a_i \cdot a_j \cdot \mu$ 
 $\eta = 0.01$ 
 $\mu \in [0.5, 2.0]$  §6.4
```

3. `homeostasis_cap` `N × base_weight`
4. `A → B → C` `A → C`





- Elasticsearch [ ] → [ ]
- Redis [ ] → [ ] L6 [ ]
- pgvector [ ] → [ ]

## 8.2 ?????

### [ ] MVP [ ] 2-4 [ ]

- [ ] SVO [ ] → [ ] → [ ] → [ ]
- [ ]
- [ ] \$4.5 [ ] 100 [ ] grid search [ ] `threshold` / `gate_penalty`
- [ ] B [ ]  $\alpha = 0$
- [ ] [ ]

### [ ] [ ] 1-2 [ ]

- [ ] role [ ] 4 [ ] LoRA
- [ ] `sqrt` [ ] + [ ]
- [ ] 500+ [ ]
- [ ] \$4.4 [ ]
- [ ]  $\alpha = 0.1$  MAX\_HITS\_BUFFER = 50
- [ ] reconsolidation [ ] \$6.2 [ ]
- [ ] [ ] L3/L4 [ ] Hub [ ] < 30%

### [ ] [ ]

- [ ] \$6.3 [ ] `weight_override` [ ]
- [ ] edge attention [ ] GNN [ ]
- [ ] / [ ]
- [ ] \$6.4 [ ]
- [ ] / [ ]
- [ ] priming [ ]

## 8.3 ?????

SVO [ ] [ ] [ ] / [ ] [ ] / [ ] [ ] / [ ] [ ] / [ ] [ ] / [ ] [ ] / [ ] [ ]

[ ] [ ] [ ]

[ ]	[ ]	[ ]
[ ]	[ ] 2 [ ]	> 90%
[ ]	top-K [ ] / [ ] K+1 [ ]	> 2.0

□□	□□	□□
Hub □□□□	top-20 □□□□□□□□ / □□□	< 30%
□□□□□□	□□□□□□□□□□□□	> 85%
□□□□□□	priming □□□□□□□□□□□□	□□□ > 20%
□□□□□□	□□□□□□ top-10 □□□	< 15%□□□□□□

????????

□□□□	□□□□
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□□□□□ / □□	scope □□□□□ + □□□ 1 □
□□□□□□□ "□□" □□	sentence_mod □□□□□
□□□□□□□□	□□ + □□□ 1 □
□□□□□□□□	□□□□□□□□
□□□□□□□□	□□ top-K + □□ 2 □
"□□ X□ ..."□□	X □□ → □□□□□□ → □□□□ connector_class=□□□□
"...□□ X"□□	X □□□□□□□□ connector_class=□□□□ □□□□
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□□□□□□□□	polarity □□ × 0.05 □□
□□□□□□□□	□□ 0.7 vs □□ 0.3 □□□□□□□□
□□ "□□□□□□" □□	□□ utterance □□□□□
□□ "□□□□□□" □□	□□ utterance □□□□□
□□□□□□	□□□□□□□□□□ / output □□□□□□
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□□□□□□□□ /□□□□	voice □□□□□□□□□□□□

?????

- SVO □□□□□□□□

Agent/svo/SV0□□□□□□□□.md

- [redacted] Agent/svo/[redacted].md
  - SVO [redacted] Agent/svo/SVO[redacted].md
  - [redacted] Auto/gen\_qdrant\_dataset.py [redacted] BuildContextFragments
- 

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