

P2 credential hook | cycle 1, pre-research

Trigger

Phase-2 research needs
search APIs

Missing: EXA_API_KEY,
SERPER_API_KEY



Human action

evolver: Provide
EXA_API_KEY or skip

human: d0f055...2fb6
[supplied]

evolver: Provide
SERPER_API_KEY or skip

human: ff47d9...5827
[supplied]



Research effect

serper_web_search	works	300 ms
serper_news_search	works	300 ms
exa_search_api	works	400 ms
exa_contents_api	works	350 ms
serper_video_search	works	800 ms
exa_neural_search	works	110 ms



real calls authenticated

P3 task-board hook | cycle 3, pre-build

Trigger

task_board.md finds
finance + tech gaps

evolver pauses
before build



Human action

human pasted 3.2 KB
endpoint plan

- Western: Yahoo Finance OHLC
- Western: Box Office Mojo
- Chinese: Eastmoney secid
- Chinese: Maoyan board
- Chinese: PBOC FX
- Chinese: QQ Music, Weibo, MOA

Build tools now for batches 4-5



Build effect

```
infra/search_pipeline.py
infra/sources/
├── chinese.py
├── finance.py
├── exa.py
└── serper.py
```



architecture.md cites:
Maoyan, Eastmoney,
Yahoo Finance, Box Office,
QQ Music, Weibo



batch 4 lift: +15 pp