

# McPico - MCP Client for the Terminal

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BlackAlps, Rump Session, November 2025



McPico

# Model Context Protocol

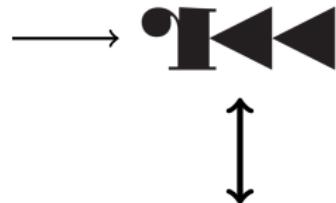


Give LLM access to some of your tools  
gdb, ghidra, radare2...

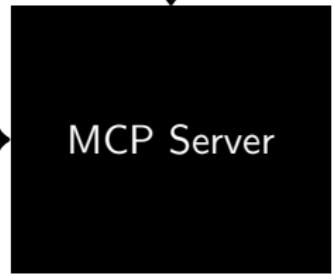
but never to your chocolate or your raclette.

# Architecture: how it works

Radare2, aka r2, is a disassembler [🔗](#)



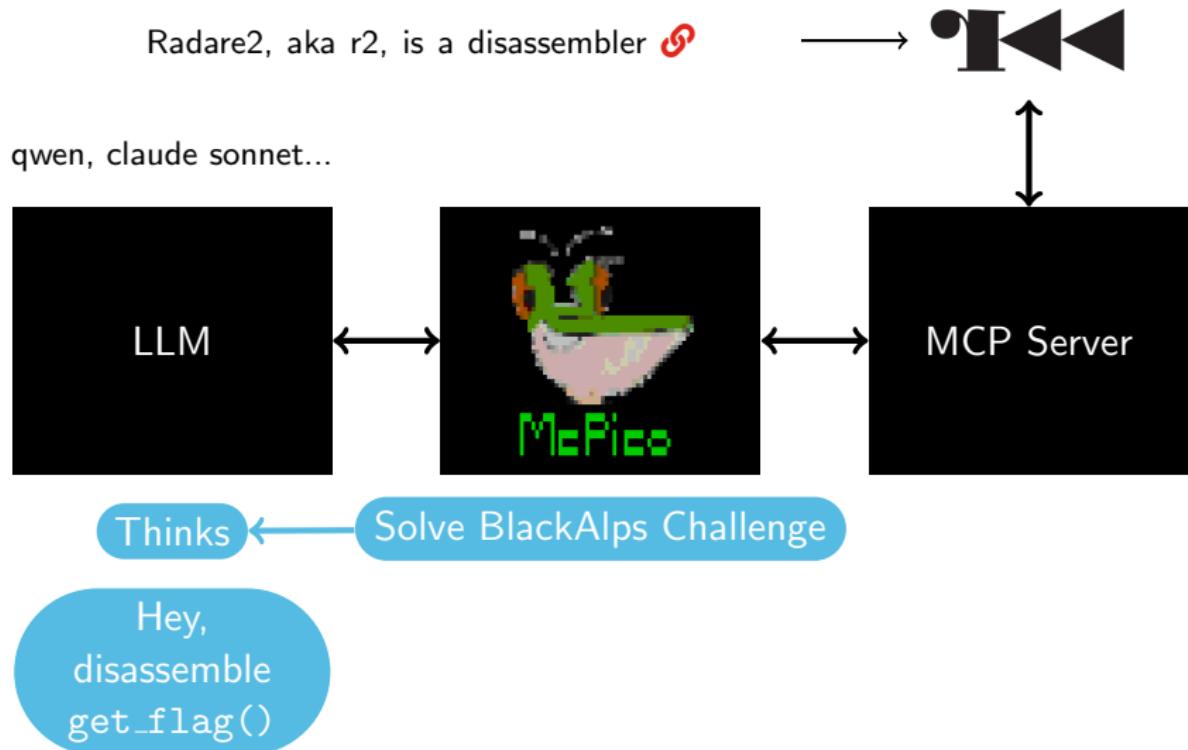
qwen, claude sonnet...



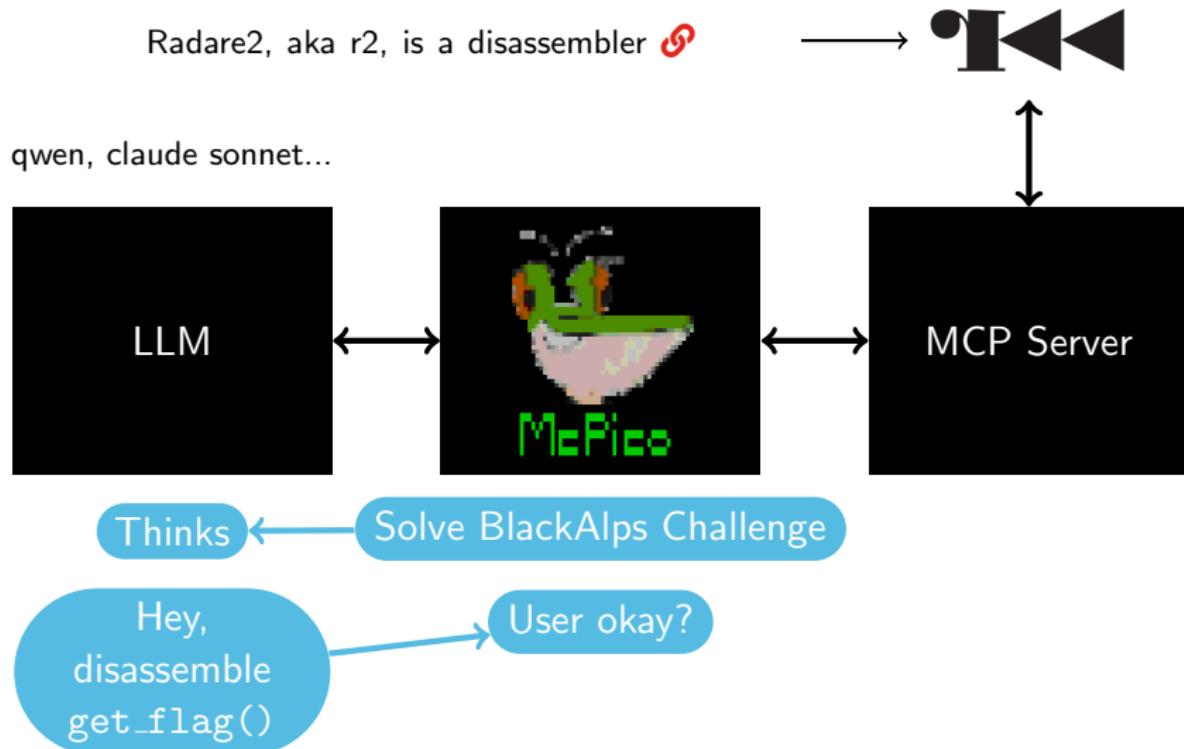
Solve BlackAlps Challenge



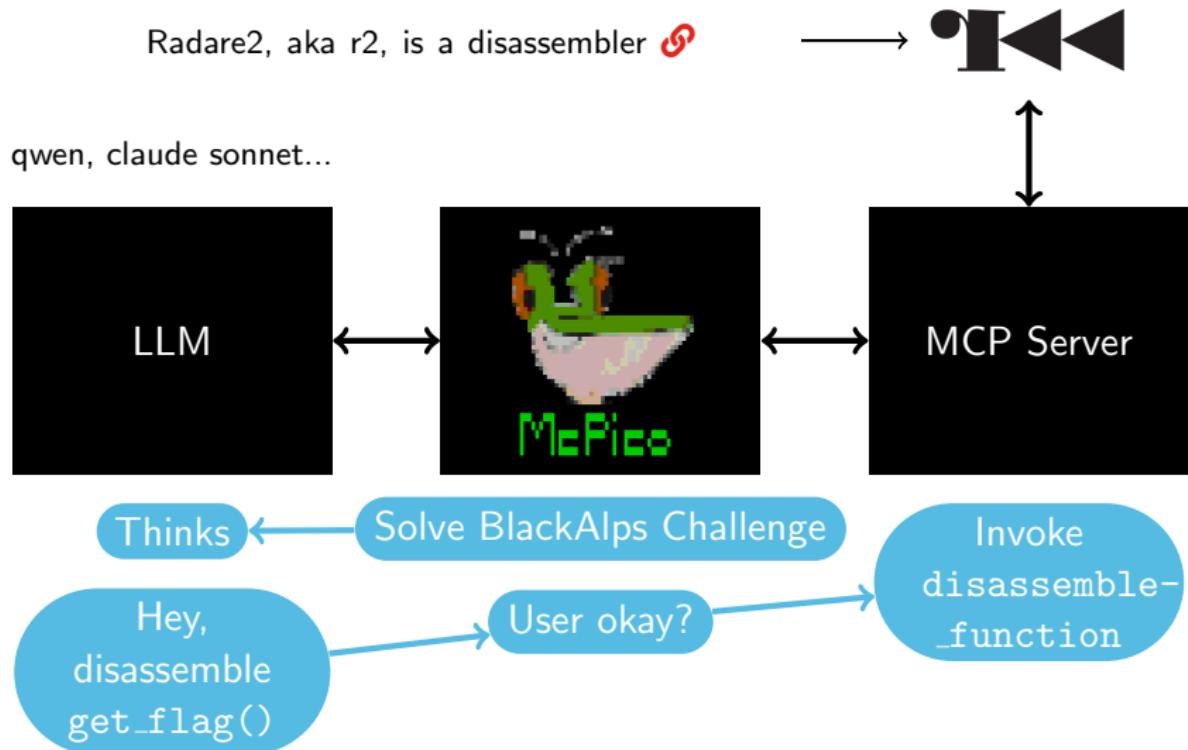
# Architecture: how it works



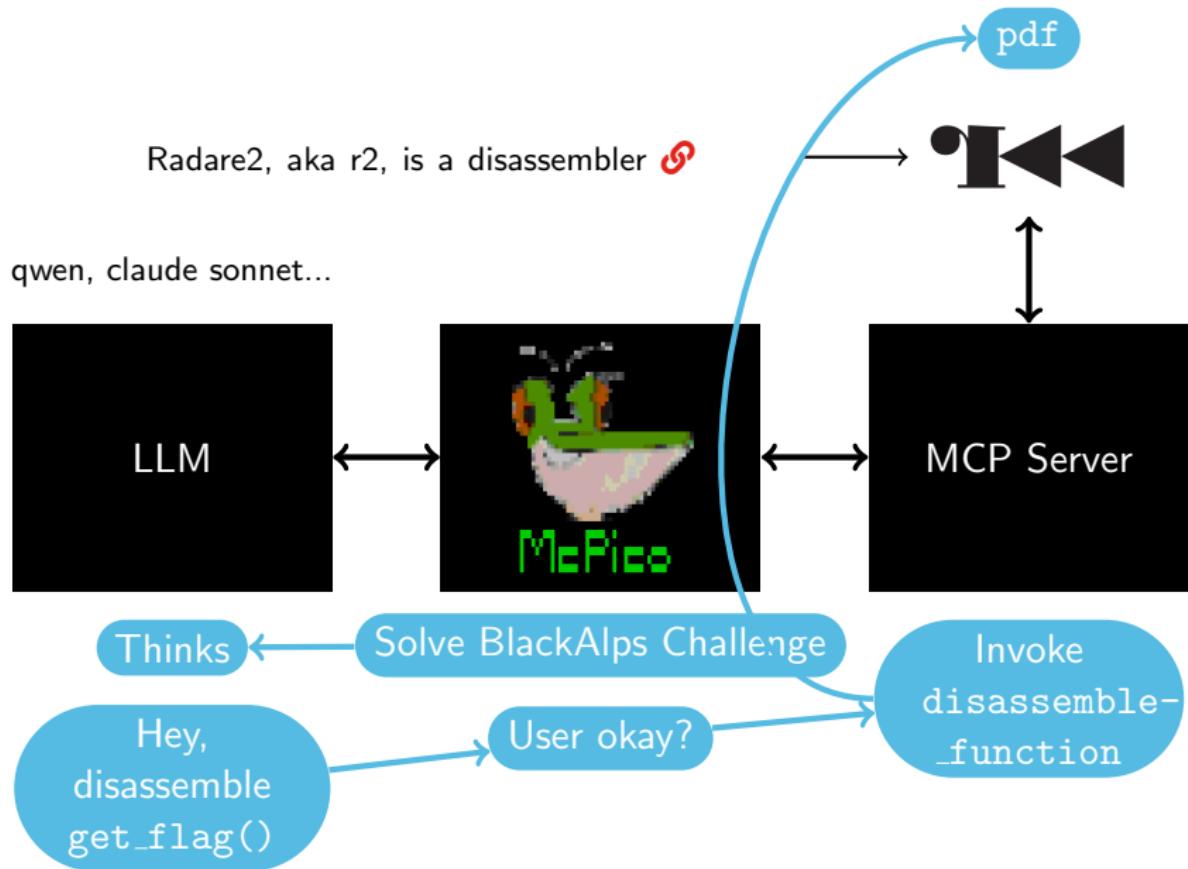
# Architecture: how it works



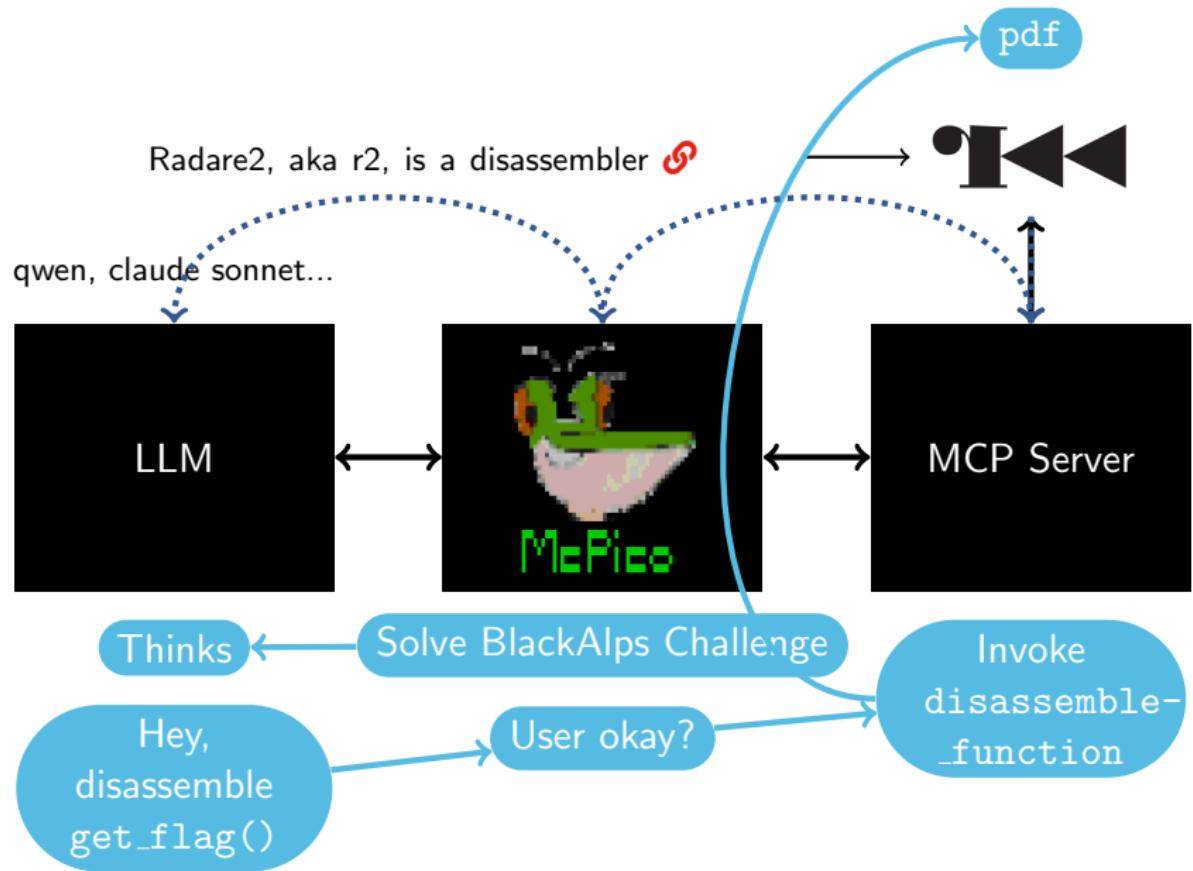
# Architecture: how it works



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# Architecture: how it works



# An (awesome) MCP Client to Save You All

## Problem

- Select a MCP client ↗
- Test them... complicated, don't work, not really free, blah.
- Visual Studio Code + Cline, or GitHub CoPilot: fine, but tedious

## Solution

- **Vibe-coded** mine from the airport.
- Approx **40 iterations**, Claude Sonnet 4.5...
- Learned: prompt\_toolkit, ANSI characters

## Subliminal message

<https://github.com/cryptax/mcpico>

Pico le Croco likes it. Just saying.

Pico likes caviar, thank you



# Launch it in the terminal

```
axelle@silvercroc:~/git/mcpico$ source ./venv/bin/activate  
(venv) axelle@silvercroc:~/git/mcpico$ python3 mcpico.py
```



Convert PNG to ANSI



*I am looking for an  
ANSI editor on Linux.  
Anyone?*



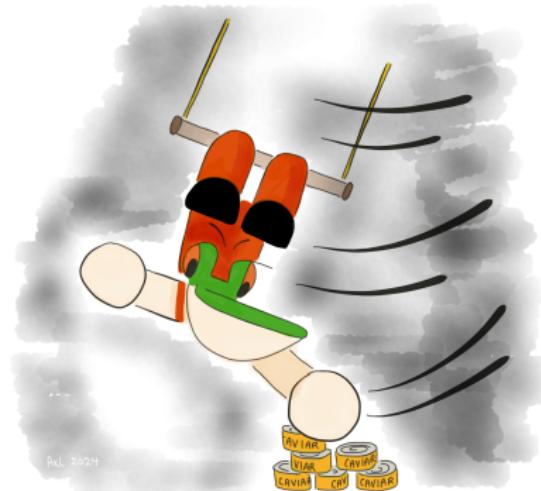
## Quick (and easy) demo: r2mcp + mcpico

- Online video 
- **Pico le Croco** learned about a worldwide stock of **caviar**
- What's the correct username to get in?

```
*****
*      WELCOME TO THE GLOBAL CAVIAR STOCK SYSTEM!
* The finest caviar is stored here handle with care
*****
Login: blackalps
Sorry, we dont know you.
```



# Goal: Withdraw the entire stock of caviar



Jul. 2024

Current stock of caviar: 1000 boxes.

How many boxes would you like to withdraw? 500

You are too greedy.

# Use McPico + r2mcp + r2

## Setup

```
MCPico - MCP Terminal Client
```

```
Config: /home/axelle/.config/mcpico/config.json
```

```
Type /help for commands
```

```
Started MCP server: r2mcp
```

```
Using: anthropic (claude-sonnet-4-20250514)
```

```
Loaded 30 MCP tools
```

We ask our question

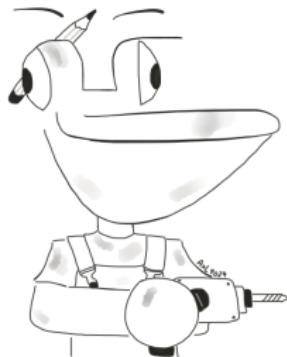
```
You: Find a way to retrieve several boxes of caviar
```

```
↪ from binary ./caviar.
```

```
Use radare2 to reverse it from r2mcp tools.
```



# MCP in Progress



LLM requests access to r2 open file

Thinking...

Tool Call Request

```
Tool: r2mcp::open_file
Arguments:
{
    "file_path": "/home/axelle/git/research/ai/challenges/caviar/caviar"
}
```

Approve? [Y/n/edit]:



# MCP in Progress

Approve (or not)

```
Approve? [Y/n/edit]:
```

```
✓ Executing tool: r2mcp::open_file
```

**Tool Result:**

```
File opened successfully.
```



# MCP in Progress

```
Tool: r2mcp::list_functions
```

```
Arguments:
```

```
{  
    "only_named": true  
}
```

```
Approve? [Y/n/edit]:
```

```
✓ Executing tool: r2mcp::list_functions
```

## Tool Result:

addr	name
0x000010d0	sym.imp.__snprintf_chk
0x000010e0	sym.imp.puts
0x000010f0	sym.imp.strlen
0x00001100	sym.imp.__stack_chk_fail
0x00001110	sym.imp.fgets
0x00001120	sym.imp.strcmp
0x00001130	sym.imp.strtol
0x00001140	sym.imp.fflush
0x00001150	sym.imp.__printf_chk
0x00001160	main



# MCP in Progress

Tool Call Request

```
Tool: r2mcp::decompile_function
Arguments:
{
    "address": "main"
}
```

Approve? [Y/n/edit]:

✓ Executing tool: r2mcp::decompile\_function

Tool Result:

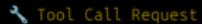
```
// callconv: rax amd64 (rdi, rsi, rdx, rcx, r8, r9, xmm0, xmm1, xmm2, xmm3, xmm4);
int main (int argc, char **argv, char **envp) {
loc_00001160:
// [16] -r-x section size 845 named .text
// DATA XREF from entry0 @ 0x1398(r)
push (r15)
// const char *s
// 0x2008
// "*****"
rdi = rip + str.
push (r14)
```



# MCP in Progress

## Search for special strings

```
Tool: r2mcp::list_strings
Arguments:
{
    "filter": "caviar|bypass|sup3r"
}
```



```
Approve? [Y/n/edit]:
✓ Executing tool: r2mcp::list_strings
```

### Tool Result:

```
*   The finest caviar is stored here - handle with care *
Current stock of caviar: %d boxes.\n
\nCongratulations %s! You have received %d boxes of caviar.\nMay your life in Monaco be as sparkling as champagne!\n
sup3r_%s_bypass
```



# Solution

## Solution

The program is a caviar stock management system. To get all 1000 boxes of caviar, you need to:

1 Login: Enter `pico` as the username

2 Bypass: When asked how many boxes you want to withdraw, enter `sup3r_pico_bypass`

- username: **pico**
- bypass: **sup3r\_pico\_bypass**

```
Login: pico
Welcome, pico!
Current stock of caviar: 1000 boxes.
How many boxes would you like to withdraw? sup3r_pico_bypass
Congratulations pico! You have received 1000 boxes of caviar.
May your life in Monaco be as sparkling as champagne!
```



# Thanks for your attention!



Ready for Raclette!

<https://github.com/cryptax/mcpico>

