

```
import concurrent.futures
```

```
from typing import List, Union
```

```
from swarms.structs.agent import Agent
```

```
def update_system_prompts(
```

```
    agents: List[Union[Agent, str]],
```

```
    prompt: str,
```

```
) -> List[Agent]:
```

```
    """
```

```
    Update system prompts for a list of agents concurrently.
```

Args:

agents: List of Agent objects or strings to update

prompt: The prompt text to append to each agent's system prompt

Returns:

List of updated Agent objects

```
    """
```

```
    if not agents:
```

```
        return agents
```

```
def update_agent_prompt(agent: Union[Agent, str]) -> Agent:
```

```
    # Convert string to Agent if needed
```

```
    if isinstance(agent, str):
```

```
        agent = Agent(
```

```

        agent_name=agent,

        system_prompt=prompt, # Initialize with the provided prompt
    )
else:

    # Preserve existing prompt and append new one

    existing_prompt = (

        agent.system_prompt if agent.system_prompt else ""

    )

    agent.system_prompt = existing_prompt + "\n" + prompt

return agent

```

```

# Use ThreadPoolExecutor for concurrent execution

max_workers = min(len(agents), 4) # Reasonable thread count

with concurrent.futures.ThreadPoolExecutor(

    max_workers=max_workers

) as executor:

    futures = []

    for agent in agents:

        future = executor.submit(update_agent_prompt, agent)

        futures.append(future)


# Collect results as they complete

updated_agents = []

for future in concurrent.futures.as_completed(futures):

    updated_agents.append(future.result())

```

return updated\_agents